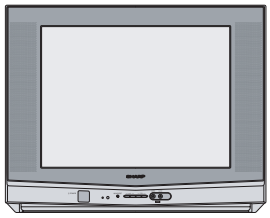
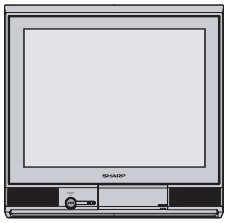
1st Edition

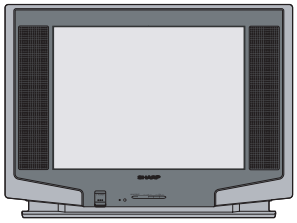
SHARP SERVICE MANUAL



21F-PT220



21F-PA18
21F-PA18(B)



21F-PD250

COLOUR TELEVISION

Chassis No.GA-7

21F-PA18
21F-PA18(B)
21F-PD250
MODEL 21F-PT220

In the interests of user-safety (Required by safety regulations in some countries) the set should be restored to its original condition and only parts identical to those specified should be used.

FEATURES

- PAL-B/G, D/K
- Frequency Synthesizer Tuner
- Full Auto System
- 100-CH Program Memory
- CATV (Hyper Band Ready)
- Hotel Mode
- White Temperature Select
- Off Timer
- Blue Back Function
- Aperture Control Circuit
- Auto Fine Tuning
- NTSC Colour Comb Filter
- High Contrast Picture (Black Stretch Circuit)
- Child Lock
- Multi Languages OSD (English/Thai)
- Rear AV IN / OUT Terminals
- Front AV-IN Terminal (Model 21F-PT220)

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Parts Guide

WARNING

The chassis in this receiver is partially hot. Use an isolation transformer between the line cord plug and power receptacle, when servicing this chassis. To prevent electric shock, do not remove cover. No user-serviceable parts inside. Refer servicing to qualified service personnel.

SHARP MANUFACTURING (THAILAND) CO.,LTD.

CHAPTER 1. SPECIFICATIONS

[1] SPECIFICATIONS

Convergence ..... Self Convergence System
Focus ..... UNI-BI Focusing
Sweep Deflection ..... Magnetic

Intermediate Frequencies
- Picture IF Carrier 38.9MHz
- Sound IF Carrier Frequency
  - 6.5MHz 32.4MHz
  - 6.0MHz 32.9MHz
  - 5.5MHz 33.4MHz
- Colour Sub-Carrier Frequency 34.47MHz

Power Input ..... 110 ~ 240V AC 50/60 Hz
Power Consumption 83W

Audio Power Output Rating ..... 21F-PA18 & 21F-PA18(B) : 3W (rms)
21F-PD250 & 21F-PT220 : 5W (rms)

Speaker
- Size ..... 21F-PA18 & 21F-PA18(B) : 5 x 9 cm (1 pc)
21F-PD250 & 21F-PT220 : 5 x 9 cm (2 pcs)

Voice Coil Impedance ..... 16 ohms at 400 Hz

Aerial Input Impedance
- VHF/UHF ..... 75 ohms Unbalanced

Receiving System ..... PAL-B/G, PAL - D/K, NTSC 3.58 MHz-B/G

Receiving Channel
- VHF-Channels ..... E2(48.25MHz) thru E12(224.25MHz)
S1(105.25MHz) thru S41(463.25HMz)
- UHF-Channels ..... E21(471.25MHz) thru E69(855.25MHz)

Dimensions ..... 21F-PA18 & 21F-PA18(B) : Width: 502 mm
Height: 485 mm
Depth: 485 mm
Weight(approx): 22.5 kg

21F-PD250 : Width: 625 mm
Height: 470 mm
Depth: 495.5 mm
Weight(approx): 22 kg

21F-PT220 : Width: 577 mm
Height: 465.5 mm
Depth: 480 mm
Weight(approx): 21.5 kg

Cabinet material ..... All Plastics

Specifications are subject to change without prior notice

CHAPTER 2. IMPORTANT SERVICE NOTES

[1] IMPORTANT SERVICE NOTES

Maintenance and repair of this receiver should be done by qualified service personnel only.

1. SERVICE OF HIGH VOLTAGE SYSTEM AND PICTURE TUBE

When servicing the high voltage system, remove static charge from it by connecting a 10K ohm resistor in series with an insulated wire (such as a test probe) between picture tube dag and 2nd anode lead. (AC line cord should be disconnected from AC outlet.)

1) Picture tube in this receiver employs integral implosion protection.
2) Replace with the same type number of picture tube for continued safety.
3) Do not lift picture tube by the neck.
4) Handle the picture tube only when wearing shatterproof goggles and after discharging the high voltage completely.

2. X-RAY

This receiver is designed so that any X-Ray radiation is kept to an absolute minimum. Since certain malfunctions or servicing may produce potentially hazardous radiation with prolonged exposure at close range, the following precautions should be observed:

1) When repairing the circuit, please make sure do not increase the high voltage of the set to more than 30.0kV (at beam 0μA).
2) To keep the set in a normal operation, please make sure it's function at 26.5kV ± 1.0kV (at beam 1,100μA). The set has been factory - adjusted to the above-mentioned high voltage.

   *If there is a possibility that the high voltage fluctuates as a result of the repairs, never forget to check for such high voltage after the work.
3) Do not substitute a picture tube with unauthorizerd types and/or brands which may cause excessive X-ray radiation.

3. BEFORE RETURNING THE RECEIVER

Before returning the receiver to the user, perform the following safety checks.

1) Inspect all lead dress to make certain that leads are not pinched or that hardware is not lodged between the chassis and other metal parts in the receiver.
2) Inspect all protective devices such as non-metal control knobs, insulating materials, cabinet backs, adjustment and compartment covers or shields, isolation resistor-capacity networks, mechanical insulators etc.

CHAPTER 3. ADJUSTMENT PRECAUTIONS

[1] ADJUSTMENT PRECAUTIONS

ADJUSTMENT PRECAUTIONS

This model's setting are adjusted in two different ways: through the I2C bus control and in the conventional analog manner. The adjustments via the I2C bus control include preset-only items and variable data.

CAUTION : MAKE SURE TV SET IN "NORMAL CONDITION" BEFORE SWITCH TO SERVICE MODE FOR ADJUSTMENT.

1. Setting the service mode by the microprocessor.

(1) Press SERVICE key on the remote controller to set the TV set to SERVICE mode position, and the microprocessor is in input mode. (Adjustment through the I2C bus control).
Service Mode also can be reached by by connecting MCU Pin 5 to ground.
(JA483 connect to JA484)

(2) Press the MENU key on the remote controller to get ready to select the mode (Adjustment mode, Setting mode, Check mode and Option mode) one by one.

(3) Press the CH DOWN / UP key on the remote controller to select the item in Adjustment mode, Setting mode or Option mode.

(4) Using the VOLUME UP/ DOWN key on the remote controller, the data can be modified. Please wait approximately 200 msec for data storage in EEPROM before select to another mode.

(5) In Check mode the data cannot be changed.

(6) Press the SERVICE key again, it will switch to the NORMAL mode position, and the microprocessor is out of the SERVICE mode.

2. Factory Presetting.

(1) During POWER OFF (AC OFF), switch on service key (by connecting MCU Pin 5 to ground) then follow by AC ON. Initial values are automatically preset only when a new EEPROM is used. (Judge with the first 4 bytes).

(2) The initial data are preset as listed in page 3-6 to 3-11.

(3) Make sure the data need modification or not (Initial data).

Precaution: If haven't done this initialization, it may possibly generate excessive Beam current.

3. For reference please check with memory map RH-IXC129WJZZQ. (See Page 4-1 ~ 4-32).

1. ADJUSTMENT ITEM

***Below are the adjustment items that should be done, PLS FOLLOW THE PROCEDURE. Otherwise some adjustment items will not be accurate.

NO ***	ADJUSTMENT ITEM	EFFECTIVE MODEL	REVISION
1	BUS SET UP	ALL MODELS	
2	OPTION SET UP		
3	H-VCO		
4	VIF-VCO		
5	S-TRAP fo		
6	RF-AGC		
7	PURITY ADJ		
8	CONVERGENCE ADJ		
9	FOCUS ADJ		
10	V-SHIFT (50 Hz)		
11	H-SHIFT (50 Hz)		
12	V-SIZE (50 Hz)		
13	SCREEN		
14	WHITE BALANCE		
15	SUB-BRIGHTNESS		
16	SUB-CONTRAST		
17	SUB-COLOR		
18	SUB-TINT		
19	BEAM CURRENT CHECK		
20	BEAM PROTECTOR CHECK		
21	HV PROTECTOR CHECK		
22	OTHER PROTECTOR CHECK		
23	AV OUT CHECK		
24	AV IN CHECK		
25	CONTRAST CONTROL CHECK		
26	COLOR CONTROL CHECK		
27	BRIGHTNESS CONTROL CHECK		
28	TINT CONTROL CHECK		
29	SHARPNESS CONTROL CHECK		
30	CH DISPLAY COLOR CHECK		
31	NORMAL DISPLAY CHECK		
32	WHITE TEMP CONTROL CHECK		
33	COLOR SYSTEM CHECK		
34	SOUND SYSTEM CHECK		
35	NOISE MUTE CHECK		
36	OSD LANGUAGE QUANTITY CHECK		
37	SHOCK TEST CHECK		

2. USER DATA IN SERVICE MODE

1) While SERVICE mode ON, EEPROM DATA will switch to the service data. Also, once SERVICE mode OFF, EEPROM will switch back to previous USER DATA.

2) In the service mode, the user data establish as below,

	USER DATA
CONTRAST	MAX (60)
COLOUR	CENT (0)
BRIGHTNESS	CENT (0)
TINT	CENT (0)
SHARPNESS	CENT (0)
WHITE TEMP	STANDARD
S-VOLUME	MIN
BLUE BACK	OFF
C SYSTEM	AUTO
S SYSTEM	*1

*1: For each CH, data is same as before switch to Service mode.

The flow of Mode list as following,

* Direct Key-in Mode for Service Items in Service Mode

RC CODE (HEX)	R/C KEY NAME	SERVICE-ITEM
80	POS 1	R-C UP (IN SERVICE MODE V00)
40	POS 2	G-C UP (IN SERVICE MODE V00)
C0	POS 3	B-C UP (IN SERVICE MODE V00)
20	POS 4	R-C DOWN (IN SERVICE MODE V00)
A0	POS 5	G-C DOWN (IN SERVICE MODE V00)
60	POS 6	B-C DOWN (IN SERVICE MODE V00)
E0	POS 7	R-D UP (IN SERVICE MODE V00)
10	POS 8	B-D UP (IN SERVICE MODE V00)
50	POS 0	B-D DOWN (IN SERVICE MODE V00)
E4	FLASHBACK	R-D DOWN (IN SERVICE MODE V00)
E4	FLASHBACK	Y-MUTE (BESIDES OF SERVICE MODE V00)
75	WHITE TEMP UP	RF-AGC (V01)
F5	WHITE TEMP DOWN	VIF-VC0 (V02)
C2	TUNE DOWN	H-VCO (V03)
8D	SHARPNESS DOWN	SUB-CON (V04)
D6	BALANCE LEFT	SUB-COL (V05)
0D	SHARPNESS UP	SUB-BRIGHT (V06)
36	BALANCE RIGHT	SUB-TINT (V07)
46	TREBLE UP	SUB-SHP (V08)
C6	TREBLE DOWN	SUB-COL-YUV (V09)
26	BASS UP	SUB-TINT-YUV (V10)
24	COLOUR UP	V-SIZE (V11), V-SIZE60 (V17)
54	BRIGHTNESS DOWN	V-SHIFT (V12), V-SHIFT60 (V18)
74	TINT DOWN	H-SHIFT (V13), H-SHIFT60 (V19)
66	SURROUND UP	SCM-BR (V14)
E6	SURROUND DOWN	SCM-BB (V15)
C4	CONTRAST DOWN	SUB-VOL (V16)
4C	PICTURE	S-TRAP-BG (V20)
CC	HOLD	S-TRAP-I (V21)
2C	TEXT	S-TRAP-DK (V22)
AC	CANCEL	S-TRAP-M (V23)
EC	SIZE	S-TRAP-574 (V24)
80	POS 1	R-C UP YUV (IN SERVICE MODE V25)
40	POS 2	G-C UP YUV (IN SERVICE MODE V25)
C0	POS 3	B-C UP YUV (IN SERVICE MODE V25)
20	POS 4	R-C DOWN YUV (IN SERVICE MODE V25)
A0	POS 5	G-C DOWN YUV (IN SERVICE MODE V25)
60	POS 6	B-C DOWN YUV (IN SERVICE MODE V25)
E0	POS 7	R-D UP YUV (IN SERVICE MODE V25)
10	POS 8	B-D UP YUV (IN SERVICE MODE V25)
50	POS 0	B-D DOWN YUV (IN SERVICE MODE V25)
E4	FLASHBACK	R-D DOWN YUV (IN SERVICE MODE V25)
C1		AUTO ADJ FOR V01, V02, V03, V20, V21, V22, V23, V24
CA		T-SET
81		SERVICE MODE

1) Please set the MCL to MCL4 as below :

2) After set the MCL, please set the INITIAL SETTING to INITIAL 9.
INITIAL 9 : For Thai (All Channel Sound System are set to B/G)

MCL4 (HEX AB)		
CH-NO	Fv (MHz)	SOUND SYS
0		
1	55.25	B/G
2	175.25	B/G
3	189.25	B/G
4	203.25	B/G
5	217.25	B/G
6	535.25	B/G
7		
8		
9		
10		
11	48.25	B/G
12	62.25	B/G
13	196.25	B/G
14	210.25	B/G
15	224.25	B/G
16	471.25	B/G
17	855.25	B/G
18		
19		
20		
21	223.95	B/G
22	224.55	B/G
23	223.85	B/G
24	224.65	B/G
25	223.75	B/G
26	224.75	B/G
27		
28		
29		
30		
31	91.25	M
32	103.25	M
33	171.25	M
34	183.25	M
35	193.25	M
36	205.25	M
37	217.25	M
38	621.25	M
39		
40		

MCL4(HEX AB)		
CH-NO	Fv (MHz)	SOUND SYS
41		
42		
43		
44		
45		
46		
47		
48		
49		
50		
51		
52		
53		
54		
55		
56		
57		
58		
59		
60		
61		
62		
63		
64		
65		
66		
67		
68		
69		
70		

***NOTE: PLL DATA OF ABOVE FREQ SHOULD TAKE THE ACCOUNT OF PIF SETTING IN SERVICE OPTION O04 (VIF) BEFORE STORING INTO EEPROM**

SHIPPING SETTING & CHECKING

(1) The following default data has been factory-set for the E2PROM follow by INITIAL DATA selected.

ITEMS	DATA SETTING	MODEL
LAST POWER	ON	ALL MODELS
LAST TV/AV MODE	TV MODE	
LAST POSITION	CH 1	
FLASHBACK CHANNEL	CH 1	
1/2 DIGITENTR	2 DIGIT ENTRY	
VOLUME	0 (Min)	
BLUE BACK	OFF	
CHILD LOCK	OFF	
OFF TIMER	--:--	
PASSWORD	0000	
AFT	ALL CH ON	
COLOR SYSTEM	ALL CH AUTO	
SOUND SYSTEM	B/G	
SKIP	ALL CH OFF	
CONTRAST	60	
COLOR	+6	
BRIGHTNESS	0	
TINT	0(CENTER)	
SHARPNESS	+6	
WHITE TEMP	0	

INITIAL	LANGUAGE	SOUND SYSTEM
9 (HEX EE)	THAI	B/G

FACTORY SETTING BY MODEL

(Reference: Geomagnetism Adjustment)

MODEL	MAGNETIC FIELD(V, H) nT		BACKGROUND	LANG.	S-SYS	LANG QTY
THAI	20,000	40,000	12300°K	THAI	B/G	2

*NOTE FOR OSD TYPE:

2: ENGLISH / THAI

**This magnetic filed is in ITC CRT specification.

**AFTER INITIALIZED THE EEPROM (REFER TO FACTORY PRESETTING), READ DATA FROM EEPROM ADDRESS 00H ~ 03H,AND COMPARE TO THE LIST BELOW, IF DIFFERENT, INITIALIZE THE EEPROM.

ADDRESS	DATA	ADDRESS	DATA
00H:	**7CH**	02H:	**78H**
01H:	**70H**	03H:	**70H**

*** There are four stages of service mode data. First stage data from V00~V32 (Adjustment Mode).
To go into second stage of service mode data, press MENU key.Second stage data from F01~F185(Setting Mode).
To go into third stage of service mode data, press MENU key.Third stage data is Check Mode.
To go into fourth stage of service mode data, press MENU key.Fourth stage data from O01~O37(Option Mode).
To go into fifth stage of service mode data, press MENU key.Fifth stage data is NVM Edit Mode.

ADJUSTMENT MODE (FIRST STAGE)

EEPROM ITEMS	OSD	DATA LENGTH	INITIAL DATA	FIX/ADJ/AUTO	REMARK
R-DRIVE	V00	0~127	63	ADJ	PLS REFER TO
B-DRIVE	V00	0~127	63	ADJ	ADJ ITEM FOR
R-CUT	V00	0~255	127	ADJ	SCREEN AND
G-CUT	V00	0~255	127	ADJ	WHITE BALANCE
B-CUT	V00	0~255	127	ADJ	
RF-AGC	V01	0~127	50	AUTO	
VIF-VCO	V02	0~63	31	AUTO	
H-VCO	V03	0~7	3	AUTO	
SUB-CON	V04	0~127	100	ADJ	
SUB-COLOR	V05	0~127	63	ADJ	
SUB-BRIGHT	V06	0~255	127	ADJ	
SUB-TINT	V07	0~127	63	ADJ	
SUB-SHP PRE	V08	0~63	43	*FIX	**BUS SETUP**
SUB-COLOR-YUV	V09	0~127	90	*FIX	**BUS SETUP**
SUB-TINT-YUV	V10	0~127	63	FIX	
V-SIZE	V11	0~63	38	ADJ	
V-SHIFT	V12	0~7	3	ADJ	
H-SHIFT	V13	0~31	9	ADJ	
SCM-BR	V14	0~63	37	FIX	
SCM-BB	V15	0~63	22	FIX	
SUB-VOL	V16	0~60	60	FIX	
V-SIZE60	V17	-31~0~+31	0	*FIX	**BUS SETUP**
V-SHIFT60	V18	-7~0~+7	-1	*FIX	**BUS SETUP**
H-SHIFT60	V19	-15~0~+15	+2	FIX	IF NECESSARY, ADJ
S-TRAP(BG)	V20	0~127	64	AUTO	
S-TRAP(I)	V21	0~127	64	AUTO	
S-TRAP(DK)	V22	0~127	64	AUTO	
S-TRAP(M)	V23	0~127	64	AUTO	
S-TRAP(574)	V24	0~127	64	AUTO	
CUTOFF/BKGD YUV	V25				
R-DRI YUV	V25	0…127	63	FIX	
B-DRI YUV	V25	0…127	63	FIX	
R-CUT YUV	V25	0…255	127	FIX	NO FUNCTON
G-CUT YUV	V25	0…255	127	FIX	NO FUNCTON
B-CUT YUV	V25	0…255	127	FIX	NO FUNCTON
SUB-CON YUV	V26	0~127	100	FIX	
SUB-BRIGHT YUV	V27	0~255	127	FIX	
VS-CORRECT	V28	0~63	32	*FIX	**BUS SETUP**
VS-CORRECT_OFFSET	V29	-13~+13	0	*FIX	**BUS SETUP**
V LINEARITY	V30	0~63	32	*FIX	**BUS SETUP**
V LINEARITY_OFFSET	V31	-13~+13	0	*FIX	**BUS SETUP**
SUB-SHP OV	V32	0~63	43	*FIX	**BUS SETUP**

SETTING MODE (SECOND STAGE)

EEPROM ITEMS	FUNCTION	OSD	DATA LENGTH	INITIAL DATA	FIX/ADJ/AUTO	REMARK
C.CLIP-LVL	CLIP LEVEL CONTRAST CONTROL OF RGB INPUT	F01	0 (20H)/ 1(40H)	0	*FIX	**BUS SETUP**
RGB-CLIP	CLIPPING OF RGB CONTRAST CONTROL	F02	0 (enable)/ 1(disable)	0	FIX	
BS	BLACK STRETCH	F03	0 (enable)/ 1(disable)	0	FIX	
ABCL	ABCL PROCESSING (ACL PROCESSING)	F04	0 (ACL)/ 1(ABCL)	0	FIX	
ABCL-GAIN	ABCL PROCESSING GAIN	F05	0 (Lo)/ 1(Hi)	0	FIX	
S-OUT-LVL-NOT USED	AUDIO OUTPUT GAIN CONTROL	F06	0…127	95	FIX	**NO FUNCTION**
VIF-G	P-IF DETECTION GAIN OUTPUT	F07	0…7	4	*FIX	**BUS SETUP**
SHPG	SHARPNESS GAIN	F08	0 (soft)/ 1(sharp)	0	FIX	
SHPG-P	SHARPNESS GAIN PAL	F09	0 (soft)/ 1(sharp)	0	FIX	
SHPG-S	SHARPNESS GAIN SECAM	F10	0 (soft)/ 1(sharp)	0	FIX	
SHPG-N4	SHARPNESS GAIN N443	F11	0 (soft)/ 1(sharp)	0	FIX	
SHPG-N3	SHARPNESS GAIN N358	F12	0 (soft)/ 1(sharp)	1	FIX	
YDL	Y SIGNAL DELAY	F13	0…7	5	FIX	
YDL-P	Y SIGNAL DELAY PAL	F14	0…7	5	FIX	
YDL-S	Y SIGNAL DELAY SECAM	F15	0…7	7	FIX	
YDL-N4	Y SIGNAL DELAY N443	F16	0…7	5	FIX	
YDL-N3	Y SIGNAL DELAY N358	F17	0…7	5	FIX	
YDL-AV	Y SIGNAL DELAY AV	F18	0…7	6	FIX	
YDL-AV-P	Y SIGNAL DELAY PAL (AV)	F19	0…7	6	FIX	
YDL-AV-S	Y SIGNAL DELAY SECAM (AV)	F20	0…7	7	FIX	
YDL-AV-N4	Y SIGNAL DELAY N443 (AV)	F21	0…7	6	FIX	
YDL-AV-N3	Y SIGNAL DELAY N358 (AV)	F22	0…7	6	*FIX	**BUS SETUP**
YDL-YUV	Y SIGNAL DELAY YUV	F23	0…7	6	*FIX	**BUS SETUP**
COL-AV (OFFSET)	COLOUR OFFSET AV	F24	-31…0…+31	+10	*FIX	**BUS SETUP**
COL-P (OFFSET)	COLOUR OFFSET PAL	F25	-31…0…+31	0	*FIX	**BUS SETUP**
COL-S (OFFSET)	COLOUR OFFSET SECAM	F26	-31…0…+31	+9	FIX	
COL-N4 (OFFSET)	COLOUR OFFSET N443	F27	-31…0…+31	-8	FIX	
COL-N3 (OFFSET)	COLOUR OFFSET N358	F28	-31…0…+31	-7	*FIX	**BUS SETUP**
COL-ADJ (OFFSET)	COLOUR OFFSET ADJUST	F29	-31…0…+31	0	*FIX	**BUS SETUP**
SHP-PRE-AV (OFFSET)	SHARPNESS PRE OFFSET -AV	F30	-31…0…+31	+5	*FIX	**BUS SETUP**
SHP-PRE-YUV (OFFSET)	SHARPNESS PRE OFFSET -YUV	F31	-31…0…+31	-5	*FIX	**BUS SETUP**
SHP-PRE-P (OFFSET)	SHARPNESS PRE OFFSET -PAL	F32	-31…0…+31	-10	*FIX	**BUS SETUP**
SHP-PRE-S (OFFSET)	SHARPNESS PRE OFFSET - SECAM	F33	-31…0…+31	-15	*FIX	**BUS SETUP**
SHP-PRE-N4 (OFFSET)	SHARPNESS PRE OFFSET -N443	F34	-31…0…+31	-10	*FIX	**BUS SETUP**
SHP-PRE-N3 (OFFSET)	SHARPNESS PRE OFFSET -N358	F35	-31…0…+31	-10	*FIX	**BUS SETUP**
SHP-OV-AV (OFFSET)	SHARPNESS OV OFFSET -AV	F36	-31…0…+31	+5	*FIX	**BUS SETUP**
SHP-OV-YUV (OFFSET)	SHARPNESS OV OFFSET - YUV	F37	-31…0…+31	+5	FIX	
SHP-OV-P (OFFSET)	SHARPNESS OV OFFSET -PAL	F38	-31…0…+31	0	*FIX	**BUS SETUP**
SHP-OV-S (OFFSET)	SHARPNESS OV OFFSET - SECAM	F39	-31…0…+31	-5	*FIX	**BUS SETUP**
SHP-OV-N4 (OFFSET)	SHARPNESS OV OFFSET-N443	F40	-31…0…+31	0	*FIX	**BUS SETUP**
SHP-OV-N3 (OFFSET)	SHARPNESS OV OFFSET -N358	F41	-31…0…+31	0	*FIX	**BUS SETUP**
TINT-AV (OFFSET)	TINT OFFSET AV	F42	-63…0…+63	0	*FIX	**BUS SETUP**
TINT-ADJ (OFFSET)	TINT OFFSET ADJUST	F43	-63…0…+63	0	*FIX	**BUS SETUP**
TINT-YUV-ADJ (OFFSET)	TINT YUV OFFSET ADJUST	F44	-63…0…+63	0	FIX	
R-R (OFFSET)	R-DRIVE OFFSET WHEN WHITE TEMP IS RED	F45	-63…0…+63	+8	*FIX	**BUS SETUP**
B-R (OFFSET)	B-DRIVE OFFSET WHEN WHITE TEMP IS RED	F46	-63…0…+63	-10	*FIX	**BUS SETUP**
R-B (OFFSET)	R-DRIVE OFFSET WHEN WHITE TEMP IS BLUE	F47	-63…0…+63	-3	*FIX	**BUS SETUP**
B-B (OFFSET)	B-DRIVE OFFSET WHEN WHITE TEMP IS BLUE	F48	-63…0…+63	+13	*FIX	**BUS SETUP**
CTRAP-ADJ	CENTER VALUE OF CHROMA TRAP	F49	0…3	2	FIX	
CTRAP-ADJ-P	CENTER VALUE OF CHROMA TRAP PAL	F50	0…3	2	FIX	
CTRAP-ADJ-S	CENTER VALUE OF CHROMA TRAP SECAM	F51	0…3	2	FIX	
CTRAP-ADJ-N4	CENTER VALUE OF CHROMA TRAP N443	F52	0…3	2	FIX	
CTRAP-ADJ-N3	CENTER VALUE OF CHROMA TRAP N358	F53	0…3	2	FIX	

SETTING MODE (SECOND STAGE)						
EEPROM ITEMS	**FUNCTION**	**OSD**	**DATA LENGTH**	**INITIAL DATA**	**FIX/ADJ/AUTO**	**REMARK**
1W-TV	VERT SYNC DETECTION MODE FOR AV (1 WINDOW/2 WINDOW)	F54	0 (2W)/ 1(1W)	0	FIX	
1W-AV	VERT SYNC DETECTION MODE FOR TV (1 WINDOW/2 WINDOW)	F55	0 (2W)/ 1(1W)	1	FIX	
V-FREE (NO SYNC)	SET VERTICAL TO FORCED FREE RUN MODE	F56	0(NORMAL) / 1(FREERUN)	0	*FIX	**BUS SETUP**
AFC2 (NO SYNC)	HORIZONTAL AFC2 GAIN	F57	0(NORMAL) / 1(DOWN)	0	FIX	
GAMMA	GAMMA CORRECTION QTY	F58	0…3	0	*FIX	**BUS SETUP**
BS-D/C	BLACK STRETCH CONTROL LEVEL	F59	0…15	10	FIX	
BS-GAIN	BLACK STRETCH LEVEL	F60	0/1	0	FIX	
OM-DET	OVER MODULATION DETECT	F61	0 (disable)/ 1(enable)	0	FIX	
SL-TV	SLICE LEVEL OF SYNC DETECTION TV	F62	0…7	2	FIX	
SL-AV	SLICE LEVEL OF SYNC DETECTION AV	F63	0…7	4	*FIX	**BUS SETUP**
SL-YUV	SLICE LEVEL OF SYNC DETECTION YUV	F64	0…7	4	FIX	
AS/FBP-TV	AS-TV/AV/YUV SWITCH & CH CHANGE, FBP-FLYBACK PULSE SLICE LEVEL (TV)	F65	0…3	2	*FIX	**BUS SETUP**
AS/FBP-AV	AS-TV/AV/YUV SWITCH & CH CHANGE, FBP-FLYBACK PULSE SLICE LEVEL (AV)	F66	0…3	2	*FIX	**BUS SETUP**
AS/FBP-YUV	AS-TV/AV/YUV SWITCH & CH CHANGE, FBP-FLYBACK PULSE SLICE LEVEL (YUV)	F67	0…3	2	*FIX	**BUS SETUP**
VDL	COLOUR DIFF. INPUT PHASE ADJ	F68	0…3	0	FIX	
UDL	COLOUR DIFF. INPUT PHASE ADJ	F69	0…3	0	FIX	
AUTO-SCM-KIL-TV	SECAM COLOUR KILLER SENSITIVITY (TV)	F70	0…3	1	FIX	
SECAM-BGP	INTERNAL SECAM BGP TIMING	F71	0…3	0	FIX	
N45	INHIBIT 50Hz NTSC 4.43	F72	0 (enable)/ 1(disable)	0	FIX	
OSD-POS-V50	OSD VERTICAL POSITION (50Hz)	F73	1…55	36	FIX	
OSD-POS-V60	OSD VERTICAL POSITION (60Hz)	F74	1…50	31	FIX	
OSD-POS-H	OSD HORIZONTAL POSITION	F75	0…127	9	FIX	
CP	CHARGE PUMP	F76	0/1	1	*FIX	**BUS SETUP**
AVL LEVEL	AUTO VOLUME LIMIT LEVEL	F77	0 : 600mVrms 1 : 450mVrms	0	FIX	
AUTO-SCM-KIL-AV-YUV	SECAM COLOUR KILLER SENSITIVITY (AV/YUV)	F78	0…3	1	FIX	
AFC1-GAIN-TV	MSB OF HORIZONTAL AFC GAIN1 (TV)	F79	0…3	0	FIX	
AFC1-GAIN-AV	MSB OF HORIZONTAL AFC GAIN1 (AV)	F80	0…3	3	FIX	
AFC1-GAIN-YUV	MSB OF HORIZONTAL AFC GAIN1 (YUV)	F81	0…3	3	FIX	
OSD LEVEL	OSD LEVEL	F82	0 : 10% 1 : 30% 2 : 50% 3 : 70% 4 : 90%	3	*FIX	**BUS SETUP**
TAKE-OFF-TV	TAKEOFF/BPF OF CHROMA BPF PROCESSING TV	F83	0(BPF) / 1(TAKEOFF)	1	FIX	
TAKE-OFF-AV	TAKEOFF/BPF OF CHROMA BPF PROCESSING AV	F84	0(BPF) / 1(TAKEOFF)	0	FIX	
TAKE-OFF-YUV	TAKEOFF/BPF OF CHROMA BPF PROCESSING YUV	F85	0(BPF) / 1(TAKEOFF)	0	FIX	
C-ANGLE (103 DEG/ 95 DEG)	CHROMA MODULATION ANGLE	F86	0(103DEG) / 1(95DEG)	1	*FIX	**BUS SETUP**
AC-FAIL-WO-BRIGHT	PICTURE BLACK LEVEL (BRIGHT) CONTROL - AC FAILURE	F87	0…255	255	FIX	
FORCED-SCM-KIL-TV	FORCED SECAM COLOUR KILLER SENSITIVITY (TV)	F88	0…3	2	FIX	
FORCED-SCM-KIL-AV-YUV	FORCED SECAM COLOUR KILLER SENSITIVITY (AV/YUV)	F89	0…3	2	FIX	
CTI ADJ.	COLOUR EDGE IMPROVEMENT	F90	0 (normal)/ 1(improve)	1	FIX	
V-DEMUTE-DELAY	VIDEO DEMUTE DELAY	F91	0~255	0	*FIX	**BUS SETUP**
S-DEMUTE-DELAY	SOUND DEMUTE DELAY	F92	0~255	0	*FIX	**BUS SETUP**

SETTING MODE (SECOND STAGE)						
EEPROM ITEMS	**FUNCTION**	**OSD**	**DATA LENGTH**	**INITIAL DATA**	**FIX/ADJ/AUTO**	**REMARK**
MER	S-BOOSTER FREQ. CHARACTERISTIC CONTROL	F93	0~255	70	FIX	
MEL1	S-BOOSTER LEVEL1	F94	0~255	150	FIX	
MEL2	S-BOOSTER LEVEL2	F95	0~255	156	FIX	
MEL3	S-BOOSTER LEVEL3	F96	0~255	163	FIX	
MEL4	S-BOOSTER LEVEL4	F97	0~255	165	FIX	
MEL5	S-BOOSTER LEVEL5	F98	0~255	170	FIX	
MEL6	S-BOOSTER LEVEL6	F99	0~255	180	FIX	
S-ST-POINT	S-BOOSTER START POINT	F100	0~60	21	FIX	
S-SP-POINT	S-BOOSTER STOP POINT	F101	0~60	60	FIX	
S-STEP	S-BOOSTER STEP	F102	0~60	7	FIX	
POW-STORAGE	CONTRAST/BRIGHTNESS INCREASE GRADUALLY	F103	0(DISABLE) / 1(ENABLE)	1	FIX	
S-B-BASS	S-BOOSTER BASS LIMITER (WHEN S-BOOSTER ON)	F104	0 … +10	+10	FIX	
S-B-TREB	S-BOOSTER TREBLE LIMITER (WHEN S-BOOSTER ON)	F105	0 … +10	+10	FIX	
S-BASS	S-BOOSTER BASS LIMITER (WHEN S-BOOSTER OFF)	F106	0 … +10	+10	FIX	
S-TREB	S-BOOSTER TREBLE LIMITER (WHEN S-BOOSTER OFF)	F107	0 … +10	+10	FIX	
V-STD-TV	VERTICAL STANDARD SIGNAL DETECTOR SWITCH (TV)	F108	0(DISABLE) / 1(ENABLE)	0	FIX	
V-STD-AV	VERTICAL STANDARD SIGNAL DETECTOR SWITCH (AV)	F109	0(DISABLE) / 1(ENABLE)	0	FIX	
V-STD-YUV	VERTICAL STANDARD SIGNAL DETECTOR SWITCH (YUV)	F110	0(DISABLE) / 1(ENABLE)	0	FIX	
HVCO-FREERUN-SHIFT	HVCO-FREERUN-SHIFT	F111	0/1	0	FIX	
HVCO-PULLDOWN	HVCO PULLDOWN	F112	0/1	0	FIX	
HVCO-PULLUP	HVCO PULLUP	F113	0/1	0	FIX	
HVCO-PULLIN-UP	HVCO PULLIN UP	F114	0/1	0	FIX	
PEAK-ACL	PEAK ACL	F115	0/1	0	FIX	
APER-FREQ	APER FREQ	F116	0/1	0	FIX	
R-DRI YUV OFFSET	RGB OUTPUT RED GAIN OFFSET (YUV)	F117	-63…0…+63	0	FIX	
B-DRI YUV OFFSET	RGB OUTPUT BLUE GAIN OFFSET (YUV)	F118	-63…0…+63	0	FIX	
R-CUT YUV OFFSET	RGB OUTPUT-RED BIAS LEVEL OFFSET (YUV)	F119	-63…0…+63	0	FIX	
G-CUT YUV OFFSET	RGB OUTPUT-GREEN BIAS LEVEL OFFSET (YUV)	F120	-63…0…+63	0	FIX	
B-CUT YUV OFFSET	RGB OUTPUT-BLUE BIAS LEVEL OFFSET (YUV)	F121	-63…0…+63	0	FIX	
CON YUV OFFSET	SUB-CONTRAS OFFSET (YUV)	F122	-63…0…+63	0	FIX	
BRT YUV OFFSET	SUB-BRIGHT OFFSET (YUV)	F123	-63…0…+63	0	FIX	
SHP ANT-ONII OFFSET	SHARP ANT-ON II OFFSET FOR VIDEO TONE	F124	-31…0…+31	0	FIX	
WAIT MD TIME	SETTING CYCLE PROCESS TIME AT LOW POWER	F125	0..2	2	FIX	
Contrast OFFSET	CONTRAST (PICTURE LEVEL) OFFSET	F126	-63…0…+63	0	FIX	
Bright OFFSET	PICTURE BLACK LEVEL (BRIGHT) OFFSET	F127	-63…0…+63	0	FIX	
CR-PEDESTEL-ADJ	Cr SIGNAL LEVEL ADJUSTMENT	F128	0…15	8	*FIX	**BUS SETUP**
CB-PEDESTEL-ADJ	Cb SIGNAL LEVEL ADJUSTMENT	F129	0…15	8	*FIX	**BUS SETUP**
SIF-PAL	SOUND S/N SWITCH FOR PAL	F130	0/1	0	FIX	
AV2 BRIGHTNESS OFFSET	AV2 BRIGHT OFFSET	F131	-15…0…+15	+7	FIX	
BASS OFFSET	BASS OFFSET	F132	-4…0…+4	0	*FIX	**BUS SETUP**
TREBLE OFFSET	TREBLE OFFSET	F133	-4…0…+4	0	*FIX	**BUS SETUP**
AS-SPEED-DN	AUTO SLICE SPEED SWITCH (DOWN)	F134	0(DISABLE) / 1(ENABLE)	0	FIX	
AS-SPEED-UP	AUTO SLICE SPEED SWITCH (UP)	F135	0(DISABLE) / 1(ENABLE)	0	FIX	
SIF-BPF-WIDE	SIF BPF BANDWIDTH SELECTOR	F136	0...3	0	FIX	
SIF-BPF-WIDE-574	SIF BPF BANDWIDTH SELECTOR	F137	0...3	0	*FIX	**BUS SETUP**
ACC-AMP-ON	INCREASE CHROMA ACC AMP GAIN	F138	0(NORMAL) / 1(GAIN UP)	0	FIX	
TEST PATTERN	TEST PATTERN	F139	0…15	0	FIX	
FSC-FREE	FSC-FREE	F140	0(NORMAL) / 1(FREE RUN)	1	FIX	
MCUVOUT	MCUVOUT	F141	0/1	0	FIX	
HALF-H KILLER	HALF-H KILLER	F142	0/1	1	FIX	
V-AGC	V-AGC	F143	0/1	0	FIX	
CONT NEWS	CONTRAST SETTING- NEWS	F144	0..60	30	*FIX	**BUS SETUP**
CONT MUSIC	CONTRAST SETTING- MUSIC	F145	0..60	50	*FIX	**BUS SETUP**
CONT MOVIE	CONTRAST SETTING- MOVIE	F146	0..60	60	FIX	
BRIGHT NEWS	BRIGHTNESS SETTING- NEWS	F147	-30..0..+30	0	FIX	
BRIGHT MUSIC	BRIGHTNESS SETTING- MUSIC	F148	-30..0..+30	0	FIX	

SETTING MODE (SECOND STAGE)						
EEPROM ITEMS	**FUNCTION**	**OSD**	**DATA LENGTH**	**INITIAL DATA**	**FIX/ADJ/AUTO**	**REMARK**
BRIGHT MOVIE	BRIGHTNESS SETTING- MOVIE	F149	-30..0..+30	0	FIX	
COL NEWS	COLOUR SETTING- NEWS	F150	-30..0..+30	0	*FIX	**BUS SETUP**
COL MUSIC	COLOUR SETTING- MUSIC	F151	-30..0..+30	0	FIX	
COL MOVIE	COLOUR SETTING- MOVIE	F152	-30..0..+30	+10	*FIX	**BUS SETUP**
SHARP NEWS	SHARPNESS SETTING- NEWS	F153	-30..0..+30	-10	*FIX	**BUS SETUP**
SHARP MUSIC	SHARPNESS SETTING- MUSIC	F154	-30..0..+30	0	FIX	
SHARP MOVIE	SHARPNESS SETTING- MOVIE	F155	-30..0..+30	+5	*FIX	**BUS SETUP**
SURR NEWS	SURROUND SETTING- NEWS	F156	0(OFF) / 1(ONI) / 2(ONII)	0	FIX	
SURR MUSIC	SURROUND SETTING- MUSIC	F157	0(OFF) / 1(ONI) / 2(ONII)	0	FIX	
SURR MOVIE	SURROUND SETTING- MOVIE	F158	0(OFF) / 1(ONI) / 2(ONII)	0	FIX	
TREBLE NEWS	TREBLE SETTING- NEWS	F159	-10..0..+10	-10	*FIX	**BUS SETUP**
TREBLE MUSIC	TREBLE SETTING- MUSIC	F160	-10..0..+10	0	*FIX	**BUS SETUP**
TREBLE MOVIE	TREBLE SETTING- MOVIE	F161	-10..0..+10	+5	*FIX	**BUS SETUP**
BASS NEWS	BASS SETTING- NEWS	F162	-10..0..+10	-5	*FIX	**BUS SETUP**
BASS MUSIC	BASS SETTING- MUSIC	F163	-10..0..+10	0	*FIX	**BUS SETUP**
BASS MOVIE	BASS SETTING- MOVIE	F164	-10..0..+10	+10	*FIX	**BUS SETUP**
S-BOOST NEWS	S-BOOSTER SETTING- NEWS	F165	0(OFF) / 1(ON)	0	FIX	
S-BOOST MUSIC	S-BOOSTER SETTING- MUSIC	F166	0(OFF) / 1(ON)	1	FIX	
S-BOOST MOVIE	S-BOOSTER SETTING- MOVIE	F167	0(OFF) / 1(ON)	1	FIX	
R-R-C	R-GAIN OFFSET WHEN WHITE TEMP IS RED CENTER TONE	F168	-63…0…+63	+4	FIX	
B-R-C	B -GAIN OFFSET WHEN WHITE TEMP IS RED CENTER TONE	F169	-63…0…+63	-5	FIX	
R-B-C	R-GAIN OFFSET WHEN WHITE TEMP IS BLUE CENTER TONE	F170	-63…0…+63	-1	FIX	
B-B-C	B-GAIN OFFSET WHEN WHITE TEMP IS BLUE CENTER TONE	F171	-63…0…+63	+6	FIX	
TRE OFFSET SUR ONII	TREBLE OFFSET WHEN SURROUND ONII	F172	-7... 0 ...+7	+1	*FIX	**BUS SETUP**
VFREE2	V-FREE WHEN H LOCKED OUT	F173	0(OFF) / 1(ON)	0	FIX	
VD3 / VD2 / VD1-TV	VD2 & VD1-VERT SYNC DETECT MIN WIDTH MSB & LSB RESPECTIVELY (TV)	F174	0…7	1	FIX	
VD3 / VD2 / VD1-AV	VD2 & VD1-VERT SYNC DETECT MIN WIDTH MSB & LSB RESPECTIVELY (AV)	F175	0…7	3	FIX	
VD3 / VD2 / VD1-YUV	VD2 & VD1-VERT SYNC DETECT MIN WIDTH MSB & LSB RESPECTIVELY (YUV)	F176	0…7	3	FIX	
SL-TV (WEAK)	SL-TV (WEAK)	F177	0…7	7	FIX	
VIF-AGC THRESHOLD	VIF AGC THRESHOLD	F178	0…127	127	FIX	
AFT OFFSET	AFT OFFSET	F179	0 (OFF) 1 (-50kHz) 2 (-100kHz) 3 (-150kHz) 4 (-200kHz)	0	*FIX	**BUS SETUP**
VOL-START	VOLUME START POINT	F180	0…60	60	*FIX	**BUS SETUP**
VOL-STEP	VOLUME STEP	F181	0…60	0	*FIX	**BUS SETUP**
BASS-LIMIT1	BASS-LIMIT1	F182	0 (0000) 1 (1001) 2 (1010) 3 (1011) 4 (1100) 5 (1101) 6 (1110) 7 (1111)	7	*FIX	**BUS SETUP**
BASS-LIMIT2	BASS-LIMIT2	F183	0 (0000) 1 (1001) 2 (1010) 3 (1011) 4 (1100) 5 (1101) 6 (1110) 7 (1111)	7	*FIX	**BUS SETUP**
BASS-LIMIT3	BASS-LIMIT3	F184	0 (0000) 1 (1001) 2 (1010) 3 (1011) 4 (1100) 5 (1101) 6 (1110) 7 (1111)	7	*FIX	**BUS SETUP**
BASS-LIMIT4	BASS-LIMIT4	F185	0 (0000) 1 (1001) 2 (1010) 3 (1011) 4 (1100) 5 (1101) 6 (1110) 7 (1111)	7	*FIX	**BUS SETUP**

OPTION MODE (FOURTH STAGE)				
EEPROM ITEMS	**OSD**	**DATA LENGTH**	**INITIAL DATA**	**REMARK**
***HOTEL MODE	O01	0 (0FF) / 1 (0N)	0	OPTION SET UP
***HTL-POS	O02	0~99,--	--	OPTION SET UP
***HTL-VOL	O03	0~60,--	--	OPTION SET UP
VIF-NOT-USE	O04	0 (38.0) / 1 (38.9)	1	OPTION SET UP
SECAM	O05	0 (DISABLE) / 1 (ENABLE)	1	OPTION SET UP
N443(RF)	O06	0 (DISABLE) / 1 (ENABLE)	1	OPTION SET UP
N358(RF)	O07	0 (DISABLE) / 1 (ENABLE)	1	OPTION SET UP
Force-Col	O08	0 (DISABLE) / 1 (ENABLE)	0	OPTION SET UP
S-SYS	O09	1(BG ONLY)~15(ALL)	15	OPTION SET UP
AV	O10	0 (DISABLE) / 1 (ENABLE)	1	OPTION SET UP
AV2	O11	0 (DISABLE) / 1 (ENABLE)	1	OPTION SET UP
YUV	O12	0 (DISABLE) / 1 (ENABLE)	1	OPTION SET UP
S-CTRL	O13	0 (DISABLE) / 1 (ENABLE)	1	OPTION SET UP
NICAM-NOT-USE	O14	0 (DISABLE) / 1 (ENABLE)	0	OPTION SET UP
A2-NOT-USE	O15	0 (DISABLE) / 1 (ENABLE)	0	OPTION SET UP
TEXT-NOT-USE	O16	0 (DISABLE) / 1 (ENABLE)	0	OPTION SET UP
BIL	O17	0 (DISABLE) / 1 (ENABLE)	0	OPTION SET UP
LANG	O18	1~255	63	OPTION SET UP
SERCH-SP	O19	1(350)~2(450)~3(550)~4(650)~5(750)	3	OPTION SET UP
R/C-MENU	O20	0 (ENABLE) / 1 (DISABLE)	0	OPTION SET UP
LED-CONT	O21	0 (ONE LED) / 1 (TWO LED)	0	OPTION SET UP
S-BOOSTER	O22	0 (DISABLE) / 1 (ENABLE)	0	OPTION SET UP
SHARP-LOGO	O23	0 (DISABLE) / 1 (ENABLE)	0	OPTION SET UP
TUNER BAND	O24	0 / 1	0	OPTION SET UP
WHITE BACK	O25	0 (DISABLE) / 1 (ENABLE)	1	OPTION SET UP
BOOSTER	O26	0 (DISABLE) / 1 (ENABLE)	0	OPTION SET UP
250 CHANNEL	O27	0 : 100 channels (8k EEPROM) 1 : 250 channels (16k EEPROM)	0	OPTION SET UP
AVL	O28	0 : fix to 0 1 : fix to 1 2 : AVL in SOUND MENU	2	OPTION SET UP
**LNA TUNER	O29	0(Alps) / 1(Matsushita)	0	OPTION SET UP (ONLY FUNCTION IF ANTENNA BOOSTER O26 =1)
CHILD LOCK	O30	0 (DISABLE) / 1 (ENABLE)	1	OPTION SET UP
NORMAL KEY	O31	Set items to default for 0 : Picture and Sound 1 : Picture only	0	OPTION SET UP
AV MODE	O32	0 (DISABLE) / 1 (ENABLE)	1	OPTION SET UP
S-CTRL LIMIT	O33	0 (DISABLE) / 1 (ENABLE)	0	OPTION SET UP
MP-IN	O34	0 (DISABLE) / 1 (ENABLE)	1	OPTION SET UP
VIRGIN-MODE	O35	0 (DISABLE) / 1 (ENABLE)	0	OPTION SET UP
WHITE-TEMP	O36	0 : 3 modes 1 : 5 modes	0	OPTION SET UP
LK MENU	O37	0 (DISABLE) / 1 (ENABLE)	0	OPTION SET UP

*** HOTEL MODE
OPERATION OF HOTEL MODE:
WHEN CHANGE SERVICE DATA O01 TO 1, HOTEL MODE IS ON
WHEN HOTEL MODE IS ON,

1. Max volume data is determined by option setting HTL-VOL (O03)
2. Channel position after POWER ON is determined by option setting HOTEL-POS (O02) (if option setting HOTEL-POS is not set, processing is according to last position data).
3. User data updates of EEPROM regarding the video and audio control is not allowed.
4. Preset mode is disable.
5. CH SETTING menu is not available.

** TUNER BAND

P-Freq	BAND	
	TUNER BAND = 0 (same as GA6)	TUNER BAND = 1
41.10MHz ~ 122.10MHz	VHF-L (0001)	VHF-L (0001)
122.15MHz ~ 143.10MHz		VHF-H (0010)
143.15MHz ~ 362.10MHz	VHF-H (0010)	
362.15MHz ~ 426.10MHz		UHF (1000)
426.15MHz ~ 871.10MHz	UHF (1000)	

ADJ ITEM: BUS SET UP (1 ST & 2ND STAGE SERVICE DATA)

SERVICE ITEMS		ALL MODELS	REMARK
V08	SUB-SHP PRE	38	
V09	SUB-COLOR-YUV	90	
V10	SUB-TINT-YUV	63	
V17	V-SIZE60	+4	ADJUST IF NECESSARY TO IMPROVE
V18	V-SHIFT60	-2	
V28	VS-CORRECT	44	
V29	VC-CORRECT OFFSET	-9	
V30	V LINEARITY	36	
V31	V LINEARITY OFFSET	+3	
V32	SUB-SHP 0V	38	
F01	C.CLIP-LVL	1	
F07	VIF-G	7	
F22	YDL-AV-N3	5	
F23	YDL-YUV	6	
F24	COL-AV	+4	
F25	COL-P	+12	
F28	COL-N3	+8	
F29	COL-ADJ	+14	
F30	SHP-PRE-AV	+1	
F32	SHP-PRE-P (OFFSET)	+7	
F33	SHP-PRE-S (OFFSET)	+2	
F34	SHP-PRE-N4 (OFFSET)	+7	
F35	SHP-PRE-N3 (OFFSET)	+7	
F36	SHP-OV-AV (OFFSET)	+1	
F38	SHP-OV-P (OFFSET)	+7	
F39	SHP-OV-S (OFFSET)	+2	
F40	SHP-OV-N4 (OFFSET)	+7	
F41	SHP-OV-N3 (OFFSET)	+7	
F42	TINT-AV	+7	
F43	TINT-ADJ	+2	
F45	R-R (OFFSET)	0	
F46	B-R (OFFSET)	-9	
F47	R-B (OFFSET)	-6	
F48	B-B (OFFSET)	+8	
F56	V-FREE (NO SYNC)	1	
F58	GAMMA	1	
F63	SL-AV	2	
F65	AS/FBP-TV	3	
F66	AS/FBP-AV	3	
F67	AS/FBP-YUV	3	
F76	CP	0	
F82	OSD LEVEL	4	
F86	C-ANGLE (103 DEG/ 95 DEG)	0	
F91	V-DEMUTE-DELAY	25	
F92	S-DEMUTE-DELAY	40	
F124	SHP-ANT-ONII OFFSET	0	
F128	CR-PEDESTEL-ADJ	8	
F129	CB-PEDESTEL-ADJ	8	
F132	BASS OFFSET	0	
F133	TREBLE OFFSET	0	
F136	SIF-BPF-WIDE	0	
F144	CONT NEWS	50	
F145	CONT MUSIC	60	
F150	COL NEWS	-5	
F152	COL MOVIE	+6	
F153	SHARP NEWS	-6	
F155	SHARP MOVIE	+6	
F159	TREBLE NEWS	-10	
F160	TREBLE MUSIC	0	
F161	TREBLE MOVIE	+5	
F162	BASS NEWS	-5	
F163	BASS MUSIC	0	
F164	BASS MOVIE	+10	
F172	TRE OFFSET SUR ONII	+1	
F179	AFT OFFSET	2	
F180	VOL-START	60	
F181	VOL-STEP	0	
F182	BASS-LIMIT1	7	
F183	BASS-LIMIT2	7	
F184	BASS-LIMIT3	7	
F185	BASS-LIMIT4	7	

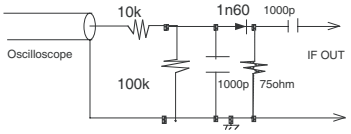
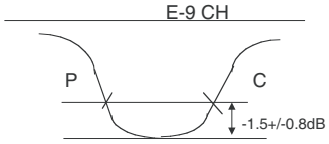
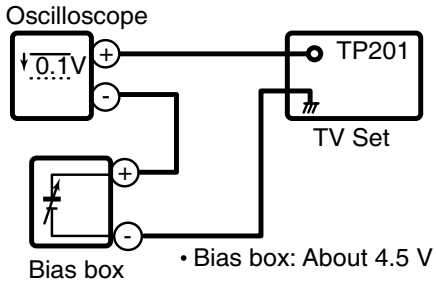
ADJ ITEM: OPTION SET UP (4TH STAGE SERVICE DATA)

SERVICE ITEMS			21F-PT220	21F-PA18 21F-PA18(B) 21F-PD250
O01	HTL MODE	0 (0FF) / 1 (0N)	0	0
O02	HTL-POS	0~99,--	--	--
O03	HTL-VOL	0~60,--	--	--
O04	HSYNC-JUDGE	0 (DISABLE) / 1 (ENABLE)	0	0
O05	SECAM	0 (DISABLE) / 1 (ENABLE)	0	0
O06	N443(RF)	0 (DISABLE) / 1 (ENABLE)	0	0
O07	N358(RF)	0 (DISABLE) / 1 (ENABLE)	1	1
O08	FORCE-COL	0 (DISABLE) / 1 (ENABLE)	0	0
O09	S-SYS	1(BG ONLY)~15(ALL)	5	5
O10	AV	0 (DISABLE) / 1 (ENABLE)	1	1
O11	AV2	0 (DISABLE) / 1 (ENABLE)	1	0
O12	YUV	0 (DISABLE) / 1 (ENABLE)	0	0
O13	S-CTRL	0 (DISABLE) / 1 (ENABLE)	0	0
O14	NICAM-NOT-USE	0 (DISABLE) / 1 (ENABLE)	0	0
O15	A2-NOT-USE	0 (DISABLE) / 1 (ENABLE)	0	0
O16	TEXT-NOT-USE	0 (DISABLE) / 1 (ENABLE)	0	0
O17	BIL	0 (DISABLE) / 1 (ENABLE)	1	1
O18	LANG	1~255	5	5
O19	SEARCH-SP	1(350)~2(450)~3(550)~4(650)~5(750)	1	1
O20	R/C MENU	0 (ENABLE) / 1 (DISABLE)	0	0
O21	LED-CONT	0 (ONE LED) / 1 (TWO LED)	0	0
O22	S-BOOSTER	0 (DISABLE) / 1 (ENABLE)	0	0
O23	SHARP-LOGO	0 (DISABLE) / 1 (ENABLE)	0	0
O24	TUNER BAND	0 / 1	0	0
O25	WHITE BACK	0 (DISABLE) / 1 (ENABLE)	0	0
O26	B BOOSTER	0 (DISABLE) / 1 (ENABLE)	0	0
O27	250 CHANNEL	0(100 channels) /1(250 channels)	0	0
O28	AVL	0 (fix to 0)~ 1(fix to 1)~ 2 (AVL in SOUND MENU)	0	0
O29	LNA TUNER	0 (Alps) / 1 (Matsushita)	0	0
O30	CHILD LOCK	0 (DISABLE) / 1 (ENABLE)	1	1
O31	NORMAL KEY	0 (PICTURE & SOUND) /1 (PICTURE ONLY)	0	0
O32	AV MODE	0 (DISABLE) / 1 (ENABLE)	0	0
O33	S-CTRL LIMIT	0 (DISABLE) / 1 (ENABLE)	0	0
O34	MP-IN	0 (DISABLE) / 1 (ENABLE)	0	0
O35	VIRGIN-MODE	0 (DISABLE) / 1 (ENABLE)	0	0
O36	WHITE-TEMP	0 (3 MODES) / 1 (5 MODES)	0	0
O37	LK MENU	0 (DISABLE) / 1 (ENABLE)	0	0

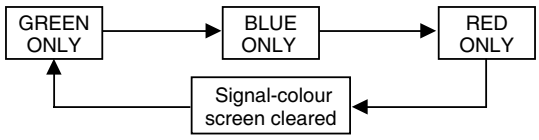
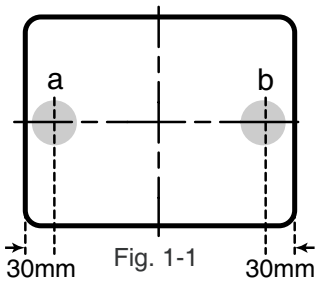
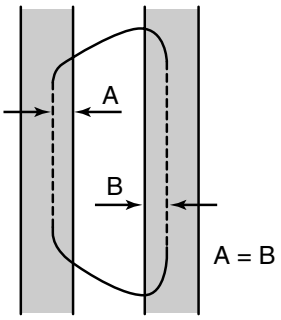
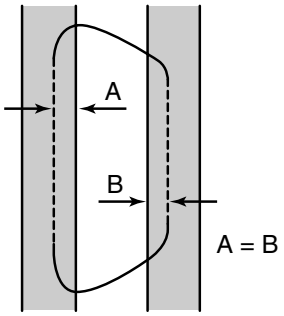
[2] ADJUSTMENT

ADJUSTMENT PRECAUTION: Makesure TV Set is in “Normal Condition” before switch to Service Mode for Adjustment.

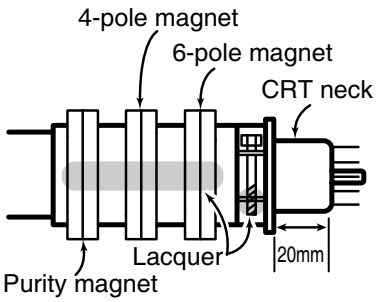
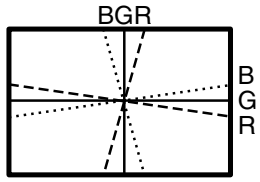
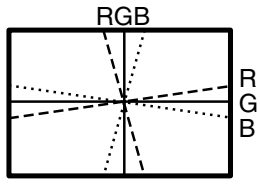
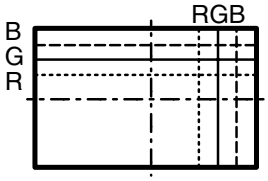
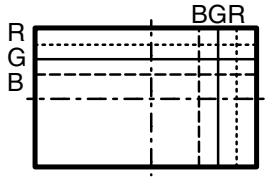
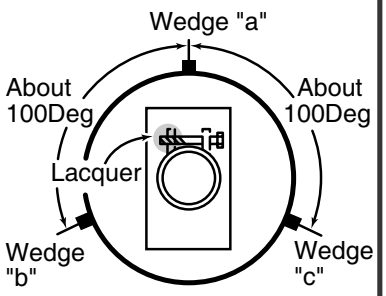
1. PIF ADJUSTMENT

No.	Adjustment point	Adjustment procedure/conditions	Waveform and others
1	**Tuner IFT (PRESET)**	1. Get the tuner ready to receive the CH. E - 9 signal,but with no signal input. Adjust the PLL data. 2. Connect the sweep generator's output cable to the tuner antenna. (RF SWEEP) 3. Adjust the sweep generator's to 80dBµV. 4. Connect the response lead (use LOW IMPEDANCE probe with wave detector ; see Fig.1) to the tuner's IF output terminal. (This terminal must have the probe alone connected). 5. Set the RF AGC to 0 - 6 V with no saturation with the waveform. 6. Adjust the tuner IF coil to obtain the waveform as shown in Fig. 2. **Note: Be sure to keep the tuner cover in position during this adjustment.**	 Fig.1  Fig.2
2	**RF-AGC TAKE OVER POINT ADJUSTMENT (I^2C BUS CONTROL)** **(AUTO & MANUAL ADJ)**	 Fig. 3-1	*** for Auto ADJ** 1) Receive “PAL COLOUR BAR” signal. signal strength: 56 ± 1dBµV(75 ohm open)** 1) Go to service mode. 2) Go to service data V01, press R/C to operate auto key (Hex C1) and confirm the ‘OK’ display on the screen. 3) If appear NG, increase data some step and pls repeat step 2. 4) Proceed step 4 & 5 in manual mode.

2. PURITY ADJUSTMENT

No.	Adjustment point	Adjustment procedure/conditions	Waveform and others
1	**PURITY ADJ.** **(No need if used ITC CRT)**	1. Receive the GREEN-ONLY signal. Adjust the beam current to ~700 µA . 2. Degauss the CRT enough with the degausing coil. Note: Follow the Job Instruction Sheet to adjust the magnetic field. (Reference: page 3-5) 3. Maintain the purity magnet at the zero magnetic field and keep the static convergence roughly adjusted. 4. Observe the points a, b,as shown in Fig. 1-1 through the microscope. Adjust the landings to A rank requirement. 5. Orient the raster rotation to 0 eastward. 6. Tighten up the deflection coil screws. • Tightening torque: 108 ± 20 N (11kgf ± 2 kgf) 7. Make sure the CRT corners landing meet the A rank requirements. If not, stick the magnet sheet to correct it. **Note: This adjustment must be done after warming up the unit for 30 minutes or longer with a beam current over 700µA.** **Note: Set to service mode by remote controller then press factory process R/C RGB key to change to RGB mono colour mode.** * For the following colours press R/C RGB(Hex 7E) key to change.  	 Fig. 1-1  Fig. 1-2 Rank "A" (on the right of the CRT)  Fig. 1-3 Rank "A" (on the left of the CRT) * Press R/C RGB key for 1 second in NORMAL MODE, the colour will change to RGB mono colour mode.

3. CONVERGENCE ADJUSTMENT

No.	Adjustment point	Adjustment procedure/conditions	Waveform and others
1	**CONVERGENCE ADJ. (To be done after the purity adjustment.)** **(No need if used ITC CRT)**	1. Receive the "Crosshatch Pattern" signal. 2. Using the remote controller, call NORMAL mode. **Static convergence** 1. Turn the 4-pole magnet to a proper opening angle in order to superpose the blue and red colours. 2. Turn the 6-pole magnet to a proper opening angle in order to superpose the green colour over the blue and red colours. **Dynamic convergence** 1. Adjust the convergence on the fringes of the screen in the following steps. a) Fig. a: Drive the wedge at point "a" and swing the deflection coil upward. b) Fig. b: Drive the wedge at point "b" and "c" and swing the deflection coil downward. c) Fig. c: Drive the "c" wedge deeper and swing the deflection coil rightward. d) Fig. d: Drive the "b" wedge deeper and swing the deflection coil leftward. 2. Fix all the wedges on the CRT and apply glass tape over them. 3. Apply lacquer to the deflection yoke lock screw, magnet unit (purity, 4-pole, 6-pole magnets) and magnet unit lock screw. Finally received the Red-only and Blue-only signals to make sure there is no other colours on the screen.  	 Fig. a  Fig. b  Fig. c  Fig. d 

4. H-VCO, VIF-VCO & S-TRAP fo ADJUSTMENT

No.	Adjustment point	Adjustment procedure/conditions	Waveform and others
1	**H-VCO ADJ (I^2C BUS CONTROL) (AUTO & MANUAL ADJ)**	**(MANUAL ADJ)** 1) In No signal (RASTER) condition. 2) Go to service mode, choose service data **V03**. 3) Connect oscilloscope to **IC801 pin13 (H-OUT)**, adj **V03** until freq become **15.625 ± 0.15 KHz** **(Auto Adj)** 1) In No signal (RASTER) condition. 2) Go to service mode. 3) Choose service data **V03**, by pressing R/C **Auto (Hex C1)** key, OSD will appear "OK" at screen. 4) If appear "NG" pls repeat step 3.	
2	**VIF-VCO ADJ (I^2C BUS CONTROL) (AUTO & MANUAL ADJ)**	**(Manual ADJ)** 1) In No signal (RASTER) condition. 2) Go to service mode, choose service data **V02**. 3) Connect oscilloscope to **IC801 pin7 (AFT)**, adj **V02** until voltage become **2.5 ± 1 V**. **(Auto Adj)** 1) In No signal (RASTER) condition. 2) Go to service mode, choose service data **V02.** 3) Press the R/C **Auto (Hex C1)** key, OSD will appear "OK" at screen. 4) If appear "NG" pls repeat step 3.	This adjustment must be done after aging at least 3 minutes.
3	**S-TRAP fo ADJ (I^2C BUS CONTROL) (AUTO & MANUAL ADJ)**	**(Manual ADJ)** 1) In No signal (RASTER) condition. 2) Go to service mode, choose service data **V21**. 3) Connect oscilloscope to **TP 801,** adj **V21** until voltage become **Min** (below 5 V). 4) After that pls adj service data **V20 same as "V21", V22 to "V21+1", V23 to "V21-2"**. **(Auto Adj)** 1) In No signal (RASTER) condition. 2) Go to service mode, choose service data **V21**. **(S-TRAP I).** 3) Press the R/C **Auto (Hex C1)** key, OSD will appear "OK" at screen. 4) If appear "NG" pls repeat step 3. 5) Adjust **V24 (S-TRAP 574)** by repeating step 3 & 4 at final line after aging TV set to get accurate data.	***CAUTION :** Make sure to adjust **V24** at final line after aging the TV set.

5. SCREEN, WHITE BALANCE, SUB-BRIGHTNESS & SUB-CONTRAST ADJUSTMENT

<table>
<tr><th>No.</th><th>Adjustment point</th><th>Adjustment procedure/conditions</th><th>Waveform and others</th></tr>
<tr><td>1</td><td>SCREEN ADJUSTMENT (I²C BUS CONTROL)</td><td>1) In window pattern signal condition.

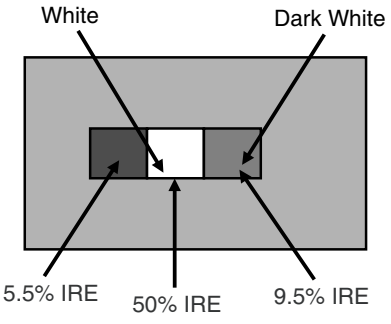
2) Go to service mode, then select V00.

3) By pressing R/C key S-Mute (Hex E8), R-D auto switch to 63, B-D auto switch to 63, R-C auto switch to 127, G-C auto switch to 127, B-C auto switch to 127, Sub-brightness V06 auto switch to 127.
Y-mute & Vertical off, screen will be in vertical cut-off condition.

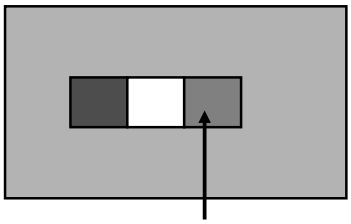
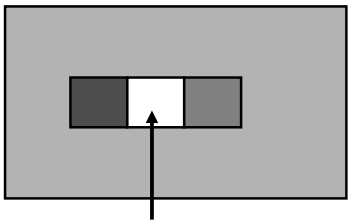
4) Adjust the Screen so that cut-off line appear in low bright, then judge that whether the cut-off line appear in Red or Green or Blue color, in this condition between R-C & G-C & B-C, fix the data of the color appear in cut-off line and adj the other two cut-off data (Note 1) so that cut-off line color become white.

5) Turn the screen VR of FBT so that cut-off line just disappear and use R/C by pressing key S-Mute (Hex E8) to disable the Y-mute & V-cut so that picture appear in normal mode.</td><td>R-CUTOFF (R-C) UP RC key "1" (HEX 80)
R-CUTOFF (R-C) DOWN RC key "4" (HEX 20)
G-CUTOFF (G-C) UP RC key "2" (HEX 40)
G-CUTOFF (G-C) DOWN RC key "5" (HEX A0)
B-CUTOFF (B-C) UP RC key "3" (HEX C0)
B-CUTOFF (B-C) DOWN RC key "6" (HEX 60)
R-DRIVE (R-D) UP RC key "7" (HEX E0)
R-DRIVE (R-D) DOWN RC key "Flashback" (HEX E4)
B-DRIVE (B-D) UP RC key "8" (HEX 10)
B-DRIVE (B-D) DOWN RC key "0" (HEX 50)</td></tr>
<tr><td>2</td><td>WHITE BALANCE ADJ (to be done after screen adj) (I²C BUS CONTROL)</td><td>1) WHITE (HIGH BEAM) (In Window Pattern Signal)
First use Minolta Color Analyzer CA100, let the gun point at Dark White position (as drawing attach), Adj V06 until LUMINANCE Y become 5 cd/m2, then let the gun point at White position (as drawing attach), Adj V04 until LUMINANCE Y become: 160 cd/m2.
Adj the R-D & B-D until the axis of color temperature become

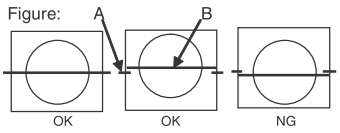
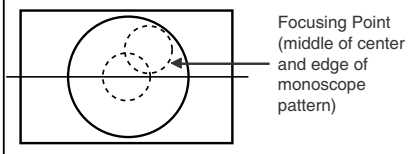
12300°K X : 0.272
Y : 0.275

2) DARK WHITE (LOW BEAM) (In Window Pattern Signal)
Let the gun point at Dark White position, if the color temperature data shift away from the data adjusted in step 1, adjust R-C, G-C & B-C but between them, first color appears in Screen adj item 1)-4 is fixed, adj the other two so that to obtain the similar axis as above.
** Repeat step 1 & 2 to get a regulated position</td><td>WINDOW PATTERN SIGNAL
 

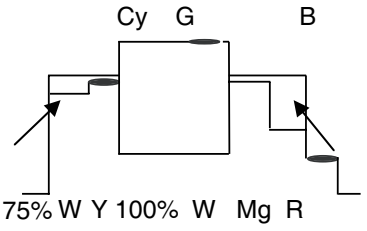
*Note : Signal using W/B Pattern Generator SX-1006 (IWATSU) or equivalent. Window Pattern Signal output level are as above:</td></tr>
</table>

No.	Adjustment point	Adjustment procedure/conditions	Waveform and others
3	**SUB-BRIGHTNESS (to be done after screen, white balance adj) (12C BUS CONTROL)**	1) In Window Pattern Signal condition. 2) Using Minolta Color Analyzer CA-100, let the gun point at **Dark White** position (as attach drawing), adjust **V06** Bus data until **LUMINANCE Y = 3 ± 0.5 cd/m2.**	WINDOW PATTERN SIGNAL  Dark White
4	**SUB-CONTRAST (to be done after screen, white balance adj, sub-bright-ness adj) (I²C BUS CONTROL)**	1) In Window Pattern Signal condition. 2) Using Minolta Color Analyzer CA-100, let the gun point at **White** position (as attach drawing), adjust **V04** Bus data until **LUMINANCE Y = 160 ± 10cd/m2**	WINDOW PATTERN SIGNAL  White
5	**Beam Current Check**	1) Receive the “Monoscope Pattern” signal. 2) Press R/C to set Picture NORMAL condition. 3) Connect the DC miliammeter between TP 603 (+) & TP 602 (-). (Full Scale: 3mA Range) 4) Beam current must be within **1100 ± 100 µA.**	

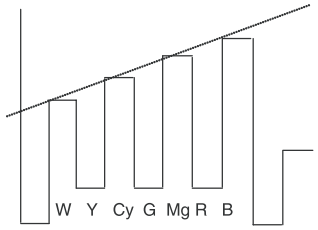
6. HORIZONTAL, VERTICAL, DEFLECTION LOOP and FOCUS ADJUSTMENT

No.	Adjustment point	Adjustment procedure/conditions	Waveform and others
1	**H-SHIFT (I^2C BUS CONTROL) (to be done after purity adj)**	1) Receive Monoscope Pattern Signal (PAL 50Hz). 2) Choose the service data **V13.** 3) Adjust the **V13** bus data to have a balance position to spec of **A=B** (as attach drawing). 4) If cannot make it to **A=B**, adjust from the best point so that B slightly smaller than **A**.	
2	**V-SHIFT (I^2C BUS CONTROL) (to be done after purity adj)**	1) Receive Monoscope Pattern Signal (PAL 50Hz). 2) Choose the service data **V12.** 3) Adjust the **V12** bus data to have a most acceptable vertical position, the monoscope pattern should be **Balance** in vertical position. **Note: B line (Monoscope middle line) must same or nearest higher position to the A mark (Tube middle mark), refer to the attach drawing.**	
3	**V-SIZE (I^2C BUS CONTROL) (to be done after purity, V-shift adj)**	1) Receive Monoscope Pattern Signal (PAL 50Hz). 2) Choose the service data **V11.** 3) Adjust **V11** bus data until the overscan become **10±1.5%.** **Caution 1: Pls aging TV more than 10 minutes before adjustment** **Caution 2: for H-shift & V-shift & V-size adj, after adj pls switch to Monoscope pattern signal (NTSC 60 Hz) to confirm all positions are the same.**	
4	**SUB-SHARPNESS**	1) Confirm Service data **V08 & V32** are **38.**	
5	**FOCUS**	1) Receive the "Monoscope Pattern" signal. 2) Press R/C to set Picture NORMAL condition. 3) Adjust the focus control to get the best focusing.	

7. PAL CHROMA ADJUSTMENT

No.	Adjustment point	Adjustment procedure/conditions	Waveform and others
1	**SUB COLOUR (I^2C BUS CONTROL) (to be done after sub-picture, sub-tint adj)**	1) Receive the “PAL Colour Bar” signal. 2) Press R/C to set Picture Normal condition. 3) Connect the oscilloscope to R-Amp Transistor Base**(JUMPER 401)** Range : 100mV/Div (AC) (Using 10:1 Probe) Sweep Time : 10 msec/Div 4) Using the R/C call **V05** in SERVICE mode. Adjust **V05** bus data, so that the 75% White & Red portions of PAL Colour Bar be at the **same level** shown as Fig 1-1. 5) Clear the SERVICE mode.	 Fig. 1-1

8. NTSC CHROMA ADJUSTMENT

No.	Adjustment point	Adjustment procedure/conditions	Waveform and others
1	**SUB-TINT (I^2C BUS CONTROL)**	1) Receive the "NTSC 3.58 Color Bar" signal thru AV in. 2) Connect the oscilloscope to B-Amp Transistor Base **(JUMPER 410)**. • Range : 100mV/Div.(AC)(Use Probe 10:1) • Sweep time : 10 µsec/Div. 3) In Service mode, go to **V07**, press **R/C Y-mute (Hex F4)** or **FLASHBACK** Key. 4) Call the **"V07"** data in service mode. Adjust the **"V07"** bus data to obtain the waveform shown as Fig. 1-1. 5) Disable **Y-Mute** by pressing **key (Hex E4)** or **FLASHBACK**, then clear the SERVICE mode.	 Fig.1-1

9. PROTECTOR OPERATION CHECKING

No.	Adjustment point	Adjustment procedure/conditions	Waveform and others
1	**BEAM PROTECTOR**	1) Receive "Monoscope Pattern" signal. 2) Set CONTRAST MAX. 3) Set BRIGHT MAX. 4) During the Collector & Emitter of **Q853/4/5** short, make sure the protector ON and switch to standby mode.	* Select one of Q853/4/5 to do each short.
2	**H, V PROTECTOR**	1) Receive "Monoscope Pattern" signal. 2) Connect output of Bias Box to **D602** cathode (C602 positive). 3) Set voltage of Bias Box to **18V** and make sure the protector is not working. 4) Set voltage of Bias Box to **27V** , and make sure the protector is working.	
3	**OTHER PROTECTOR**	1) Once finish rectified Electrolytic Capacitor short testing in +B line, check all possible damaged components on +B line. (Use random selected set for inspection)	

10. A/V INPUT, OUTPUT CHECKING

NO	ADJUSTMENT POINT	ADJUSTMENT CONDITION / PROCEDURE	WAVEFORM OR OTHERS
1	**VIDEO AND AUDIO OUTPUT CHECK**	(1) Receive the "PAL Color Bar" signal (100% White Color Bar, Sound 400 Hz 100% Mod). (2) Terminate the Video output with a 75 ohm impedance. Make sure the output is as specified **(1.0 Vp-p ± 3 dB)**. (3) Terminate the Audio output with a 10K ohm impedance. Make sure the O/P is as specified **(1.5 Vp-p ± 3 dB)**	
2	**VIDEO AND AUDIO INPUT CHECK**	(1) Using the TV/VIDEO key on the remote controller, make sure that the modes change in order of TV, AV1, AV2 & TV* again and the video & audio output are according to the input terminal for each mode. (2) Video cross-talk AV to TV checking : a) When connect AV1 input, check TV also b) When connect AV2 input, check TV also (Model 21F-PT220 only)	***CAUTION :** - 21F-PA18, 21F-PA18(B), 21F-PD250 Change in order of TV is AV & TV - 21F-PT220 Change in order of TV is AV1, AV2 & TV

11. FUNCTION OPERATION CHECKING (VIDEO AND AUDIO)

No.	Adjustment point	Adjustment procedure/conditions	Waveform and others
1	**CONTRAST key**	1) Receive "Monoscope Pattern" signal. 2) Set MENU, then go into PICTURE mode to select CONTRAST. 3) Press Volume Up/Down key to check whether the CONTRAST effect is OK or not.	
2	**COLOUR key**	1) Receive "Colour Bar" signal. 2) Set MENU, then go into PICTURE mode to select COLOUR. 3) Press Volume Up/Down key to check whether the COLOUR effect is OK or not.	
3	**BRIGHTNESS key**	1) Receive "Monoscope Pattern" signal. 2) Set MENU, then go into PICTURE mode to select BRIGHTNESS. 3) Press Volume Up/Down key to check whether the BRIGHTNESS effect is OK or not.	
4	**TINT key**	1) Receive the "NTSC Colour Bar" signal thru AV in. 2) Set MENU, then go into PICTURE mode to select TINT. 3) Press Volume Up/Down key to check TINT, UP for GREEN direction and DOWN for PURPLE direction whether is OK or not.	
5	**SHARPNESS Key**	1) Receive "Monoscope Pattern" signal. 2) Set MENU, then go into PICTURE mode to select SHARPNESS. 3) Press Volume Up/Down key to check whether the SHARPNESS effect is OK or not.	
6	**CH DISPLAY COLOUR**	1) All Ch (0~99) will have an OSD display of the channel number in green colour under AFT ON condition.	

<table>
<tr><th>No.</th><th>Adjustment point</th><th>Adjustment procedure/conditions</th><th>Waveform and others</th></tr>
<tr><td>7</td><td>NORMAL Key</td><td>1) Once in PICTURE Mode, and the NORMAL key is pressed, all the settings will be preset to normal setting accordingly.
<u>PICTURE MODE</u>
CONTRAST 60
COLOUR +6
BRIGHTNESS 0
TINT CENTER
SHARPNESS +6
WHITE TEMP Mid</td><td>*Note:
In NORMAL Mode, when press NORMAL key, will appear NORMAL OSD and all setting PICTURE function set to NORMAL.</td></tr>
<tr><td>8</td><td>WHITE TEMP</td><td>1) Receive "Monoscope Pattern" signal.
2) Set MENU, then go into PICTURE mode to select WHITE TEMP
3) Press Vo ume Up/Down key to check WHITE TEMP function The back ground will change to (shift right) bluish and (shift left) reddish.</td><td></td></tr>
<tr><td>9</td><td>COLOUR SYSTEM</td><td>1) Receive the "PAL COLOUR BAR" signal, press MENU, choose CH-SETTING to select COLOR modes except PAL, check the COLOUR is not working properly. Then, select the "PAL" mode. Check again its colour so that it is working properly.
2) Receive "NTSC 4.43" signal, press MENU, choose CH-SETTING to select COLOR modes except N443, check the COLOUR is not working properly. Then, select the N443 mode. Check again its colour so that it is working properly.
3) Receive "NTSC 3.58" signal thru AV, press MENU, choose CH-SETTING to select COLOR modes except N358, check the COLOUR is not working properly. Then, select the N358 mode. Check again its colour so that it is working properly.</td><td></td></tr>
<tr><td>10</td><td>SOUND SYSTEM</td><td>1) Receive "PAL-B/G" signal, press the “SOUND SYSTEM” to select D/K. Check the sound output in not working proprely. Select B/G and check the sound output to make sure it is working properly.
2) Receive "PAL-D/K" signal, press the “SOUND SYSTEM” to select B/G. Check the sound output in not working proprely. Select D/K and check the sound output to make sure it is working properly.</td><td></td></tr>
<tr><td>11</td><td>OSD LANGUAGE QUANTITY CHECK</td><td>1) Check OSD LANGUAGE quantity and type for respect model.
<table><tr><th>MODEL</th><th>QUANTITY</th><th>ENGLISH</th><th>THAI</th></tr><tr><td>ALL MODEL</td><td>2</td><td>O</td><td>O</td></tr></table></td><td></td></tr>
</table>

12. SHOCK TEST CHECKING

No.	Adjustment point	Adjustment procedure/conditions	Waveform and others
1	**SHOCK TEST**	1) Hit at the top of TV set for two time. 2) Check TV set not damage and TV operation operate correctly.	

CHAPTER 4. MEMORY MAP

[1] MEMORY MAP

MODEL : GA-7_IXC129WJN1	SEM PCD SOFTWARE GROUP	TV DESIGN ENGINEERING	TV PRODUCTION ENGINEERING
	ISSUED DATE :1 MARCH 2007	ISSUED DATE :	ISSUED DATE : 28.JUNE.2007
EEPROM CHECK DATA LIST 1	MANAGER	MANAGER	MANAGER MATSUNAGA
	CHIEF	CHIEF	CHIEF ISMAIL
	ENGINEER Tan	ENGINEER	ENGINEER CHIN

SLAVE ADDRESS : A0(00-FF) A2(100-1FF) A4(200-2FF) A6(300-3FF) A8(400-4FF) AA(500-5FF) AC(600-6FF) AE(700-7FF)

ADDRESS	DATA								MICON	EEPROM	EEPROM	CHASSIS		CTV FINAL		LAST INITIAL	REMARK
(HEX)	D7	D6	D5	D4	D3	D2	D1	D0	DEFAULT	RANGE	WRITE(CPU)	CHECK DATA	CHECK TYPE	CHECK DATA	CHECK TYPE	SETTING DATA	
00	EEPROM INITIALIZATION JUDGEMENT BYTE-0								7C	00-FF	7C						* depend on Ixcode, current this model ix IXC080 so set as 7C 70 78 70.
01	EEPROM INITIALIZATION JUDGEMENT BYTE-1								70	00-FF	70						
02	EEPROM INITIALIZATION JUDGEMENT BYTE-2								79	00-FF	79						
03	EEPROM INITIALIZATION JUDGEMENT BYTE-3								78	00-FF	78						
04	ROM VERSION								00	00-FF	00						
05	SOFTWARE VERSION (HIGH BYTE)								01	00-FF	01						*depend on final release version. If version 0.70 so it will become03 & 46
06	SOFTWARE VERSION (LOW BYTE)								00	00-FF	00						
07											FF						
08	TUNING FREQUENCY (LOW BYTE)									00-FF	FF						POS 0
09	TUNING FREQUENCY (HIGH BYTE)									00-FF	FF						
0A	TUNING FREQUENCY (LOW BYTE)									00-FF	5B						POS 1
0B	TUNING FREQUENCY (HIGH BYTE)									00-FF	07						
0C	TUNING FREQUENCY (LOW BYTE)									00-FF	BB						POS 2
0D	TUNING FREQUENCY (HIGH BYTE)									00-FF	10						
0E	TUNING FREQUENCY (LOW BYTE)									00-FF	D3						POS 3
0F	TUNING FREQUENCY (HIGH BYTE)									00-FF	11						
10	TUNING FREQUENCY (LOW BYTE)									00-FF	EB						POS 4
11	TUNING FREQUENCY (HIGH BYTE)									00-FF	12						
12	TUNING FREQUENCY (LOW BYTE)									00-FF	03						POS 5
13	TUNING FREQUENCY (HIGH BYTE)									00-FF	14						
14	TUNING FREQUENCY (LOW BYTE)									00-FF	DB						POS 6
15	TUNING FREQUENCY (HIGH BYTE)									00-FF	2C						
16	TUNING FREQUENCY (LOW BYTE)									00-FF	1B						POS 7
17	TUNING FREQUENCY (HIGH BYTE)									00-FF	29						
18	TUNING FREQUENCY (LOW BYTE)									00-FF	FB						POS 8
19	TUNING FREQUENCY (HIGH BYTE)									00-FF	2F						
1A	TUNING FREQUENCY (LOW BYTE)									00-FF	DB						POS 9
1B	TUNING FREQUENCY (HIGH BYTE)									00-FF	31						
1C	TUNING FREQUENCY (LOW BYTE)									00-FF	93						POS 10
1D	TUNING FREQUENCY (HIGH BYTE)									00-FF	33						
1E	TUNING FREQUENCY (LOW BYTE)									00-FF	CF						POS 11
1F	TUNING FREQUENCY (HIGH BYTE)									00-FF	06						
20	TUNING FREQUENCY (LOW BYTE)									00-FF	E7						POS 12
21	TUNING FREQUENCY (HIGH BYTE)									00-FF	07						
22	TUNING FREQUENCY (LOW BYTE)									00-FF	5F						POS 13
23	TUNING FREQUENCY (HIGH BYTE)									00-FF	12						
24	TUNING FREQUENCY (LOW BYTE)									00-FF	77						POS 14
25	TUNING FREQUENCY (HIGH BYTE)									00-FF	13						
26	TUNING FREQUENCY (LOW BYTE)									00-FF	8F						POS 15
27	TUNING FREQUENCY (HIGH BYTE)									00-FF	14						
28	TUNING FREQUENCY (LOW BYTE)									00-FF	DB						POS 16
29	TUNING FREQUENCY (HIGH BYTE)									00-FF	27						
2A	TUNING FREQUENCY (LOW BYTE)									00-FF	DB						POS 17
2B	TUNING FREQUENCY (HIGH BYTE)									00-FF	45						
2C	TUNING FREQUENCY (LOW BYTE)									00-FF	FF						POS 18
2D	TUNING FREQUENCY (HIGH BYTE)									00-FF	FF						
2E	TUNING FREQUENCY (LOW BYTE)									00-FF	FF						POS 19
2F	TUNING FREQUENCY (HIGH BYTE)									00-FF	FF						
30	TUNING FREQUENCY (LOW BYTE)									00-FF	FF						POS 20
31	TUNING FREQUENCY (HIGH BYTE)									00-FF	FF						
32	TUNING FREQUENCY (LOW BYTE)									00-FF	89						POS 21
33	TUNING FREQUENCY (HIGH BYTE)									00-FF	14						
34	TUNING FREQUENCY (LOW BYTE)									00-FF	87						POS 22
35	TUNING FREQUENCY (HIGH BYTE)									00-FF	14						
36	TUNING FREQUENCY (LOW BYTE)									00-FF	87						POS 23
37	TUNING FREQUENCY (HIGH BYTE)									00-FF	14						
38	TUNING FREQUENCY (LOW BYTE)									00-FF	97						POS 24
39	TUNING FREQUENCY (HIGH BYTE)									00-FF	14						
3A	TUNING FREQUENCY (LOW BYTE)									00-FF	85						POS 25
3B	TUNING FREQUENCY (HIGH BYTE)									00-FF	14						
3C	TUNING FREQUENCY (LOW BYTE)									00-FF	99						POS 26
3D	TUNING FREQUENCY (HIGH BYTE)									00-FF	14						
3E	TUNING FREQUENCY (LOW BYTE)									00-FF	FF						POS 27
3F	TUNING FREQUENCY (HIGH BYTE)									00-FF	FF						
MODEL									MODEL								
LETTER NO.									LETTER NO.								

MEMORY MAP (Continued)

MODEL : GA-7_IXC129WJN1	SEM PCD SOFTWARE GROUP	TV DESIGN ENGINEERING	TV PRODUCTION ENGINEERING
	ISSUED DATE :1 MARCH 2007	ISSUED DATE :	ISSUED DATE : 28.JUNE.2007
EEPROM CHECK DATA LIST 2	MANAGER	MANAGER	MANAGER MATSUNAGA
	CHIEF	CHIEF	CHIEF ISMAIL
	ENGINEER Tan	ENGINEER	ENGINEER CHIN

SLAVE ADDRESS : A0(00-FF) A2(100-1FF) A4(200-2FF) A6(300-3FF) A8(400-4FF) AA(500-5FF) AC(600-6FF) AE(700-7FF)

ADDRESS	DATA							MICON	EEPROM	EEPROM	CHASSIS		CTV FINAL		LAST INITIAL	REMARK
(HEX)	D7	D6	D5	D4	D3	D2	D1	D0	DEFAULT	RANGE	WRITE(CPU)	CHECK DATA	CHECK TYPE	CHECK DATA	CHECK TYPE	SETTING DATA	
40	TUNING FREQUENCY (LOW BYTE)									00-FF	FF						POS 28
41	TUNING FREQUENCY (HIGH BYTE)									00-FF	FF						
42	TUNING FREQUENCY (LOW BYTE)									00-FF	FF						POS 29
43	TUNING FREQUENCY (HIGH BYTE)									00-FF	FF						
44	TUNING FREQUENCY (LOW BYTE)									00-FF	FF						POS 30
45	TUNING FREQUENCY (HIGH BYTE)									00-FF	FF						
46	TUNING FREQUENCY (LOW BYTE)									00-FF	2B						POS 31
47	TUNING FREQUENCY (HIGH BYTE)									00-FF	0A						
48	TUNING FREQUENCY (LOW BYTE)									00-FF	1B						POS 32
49	TUNING FREQUENCY (HIGH BYTE)									00-FF	0B						
4A	TUNING FREQUENCY (LOW BYTE)									00-FF	6B						POS 33
4B	TUNING FREQUENCY (HIGH BYTE)									00-FF	10						
4C	TUNING FREQUENCY (LOW BYTE)									00-FF	5B						POS 34
4D	TUNING FREQUENCY (HIGH BYTE)									00-FF	11						
4E	TUNING FREQUENCY (LOW BYTE)									00-FF	23						POS 35
4F	TUNING FREQUENCY (HIGH BYTE)									00-FF	12						
50	TUNING FREQUENCY (LOW BYTE)									00-FF	13						POS 36
51	TUNING FREQUENCY (HIGH BYTE)									00-FF	13						
52	TUNING FREQUENCY (LOW BYTE)									00-FF	03						POS 37
53	TUNING FREQUENCY (HIGH BYTE)									00-FF	14						
54	TUNING FREQUENCY (LOW BYTE)									00-FF	93						POS 38
55	TUNING FREQUENCY (HIGH BYTE)									00-FF	33						
56	TUNING FREQUENCY (LOW BYTE)									00-FF	FF						POS 39
57	TUNING FREQUENCY (HIGH BYTE)									00-FF	FF						
58	TUNING FREQUENCY (LOW BYTE)									00-FF	FF						POS 40
59	TUNING FREQUENCY (HIGH BYTE)									00-FF	FF						
5A	TUNING FREQUENCY (LOW BYTE)									00-FF	FF						POS 41
5B	TUNING FREQUENCY (HIGH BYTE)									00-FF	FF						
5C	TUNING FREQUENCY (LOW BYTE)									00-FF	FF						POS 42
5D	TUNING FREQUENCY (HIGH BYTE)									00-FF	FF						
5E	TUNING FREQUENCY (LOW BYTE)									00-FF	FF						POS 43
5F	TUNING FREQUENCY (HIGH BYTE)									00-FF	FF						
60	TUNING FREQUENCY (LOW BYTE)									00-FF	FF						POS 44
61	TUNING FREQUENCY (HIGH BYTE)									00-FF	FF						
62	TUNING FREQUENCY (LOW BYTE)									00-FF	FF						POS 45
63	TUNING FREQUENCY (HIGH BYTE)									00-FF	FF						
64	TUNING FREQUENCY (LOW BYTE)									00-FF	FF						POS 46
65	TUNING FREQUENCY (HIGH BYTE)									00-FF	FF						
66	TUNING FREQUENCY (LOW BYTE)									00-FF	FF						POS 47
67	TUNING FREQUENCY (HIGH BYTE)									00-FF	FF						
68	TUNING FREQUENCY (LOW BYTE)									00-FF	FF						POS 48
69	TUNING FREQUENCY (HIGH BYTE)									00-FF	FF						
6A	TUNING FREQUENCY (LOW BYTE)									00-FF	FF						POS 49
6B	TUNING FREQUENCY (HIGH BYTE)									00-FF	FF						
6C	TUNING FREQUENCY (LOW BYTE)									00-FF	FF						POS 50
6D	TUNING FREQUENCY (HIGH BYTE)									00-FF	FF						
6E	TUNING FREQUENCY (LOW BYTE)									00-FF	FF						POS 51
6F	TUNING FREQUENCY (HIGH BYTE)									00-FF	FF						
70	TUNING FREQUENCY (LOW BYTE)									00-FF	FF						POS 52
71	TUNING FREQUENCY (HIGH BYTE)									00-FF	FF						
72	TUNING FREQUENCY (LOW BYTE)									00-FF	FF						POS 53
73	TUNING FREQUENCY (HIGH BYTE)									00-FF	FF						
74	TUNING FREQUENCY (LOW BYTE)									00-FF	FF						POS 54
75	TUNING FREQUENCY (HIGH BYTE)									00-FF	FF						
76	TUNING FREQUENCY (LOW BYTE)									00-FF	FF						POS 55
77	TUNING FREQUENCY (HIGH BYTE)									00-FF	FF						
78	TUNING FREQUENCY (LOW BYTE)									00-FF	FF						POS 56
79	TUNING FREQUENCY (HIGH BYTE)									00-FF	FF						
7A	TUNING FREQUENCY (LOW BYTE)									00-FF	FF						POS 57
7B	TUNING FREQUENCY (HIGH BYTE)									00-FF	FF						
7C	TUNING FREQUENCY (LOW BYTE)									00-FF	FF						POS 58
7D	TUNING FREQUENCY (HIGH BYTE)									00-FF	FF						
7E	TUNING FREQUENCY (LOW BYTE)									00-FF	FF						POS 59
7F	TUNING FREQUENCY (HIGH BYTE)									00-FF	FF						

MODEL								MODEL						
LETTER NO.								LETTER NO.						

MEMORY MAP (Continued)

MODEL : GA-7_IXC129WJN1	SEM PCD SOFTWARE GROUP	TV DESIGN ENGINEERING	TV PRODUCTION ENGINEERING
	ISSUED DATE :1 MARCH 2007	ISSUED DATE :	ISSUED DATE : 28.JUNE.2007
EEPROM CHECK DATA LIST 3	MANAGER	MANAGER	MANAGER MATSUNAGA
	CHIEF	CHIEF	CHIEF ISMAIL
	ENGINEER Tan	ENGINEER	ENGINEER CHIN

SLAVE ADDRESS : A0(00-FF) A2(100-1FF) A4(200-2FF) A6(300-3FF) A8(400-4FF) AA(500-5FF) AC(600-6FF) AE(700-7FF)

ADDRESS	DATA								MICON	EEPROM	EEPROM	CHASSIS		CTV FINAL		LAST INITIAL	
(HEX)	D7	D6	D5	D4	D3	D2	D1	D0	DEFAULT	RANGE	WRITE(CPU)	CHECK DATA	CHECK TYPE	CHECK DATA	CHECK TYPE	SETTING DATA	REMARK
80	TUNING FREQUENCY (LOW BYTE)									00-FF	FF						POS 60
81	TUNING FREQUENCY (HIGH BYTE)									00-FF	FF						
82	TUNING FREQUENCY (LOW BYTE)									00-FF	FF						POS 61
83	TUNING FREQUENCY (HIGH BYTE)									00-FF	FF						
84	TUNING FREQUENCY (LOW BYTE)									00-FF	FF						POS 62
85	TUNING FREQUENCY (HIGH BYTE)									00-FF	FF						
86	TUNING FREQUENCY (LOW BYTE)									00-FF	FF						POS 63
87	TUNING FREQUENCY (HIGH BYTE)									00-FF	FF						
88	TUNING FREQUENCY (LOW BYTE)									00-FF	FF						POS 64
89	TUNING FREQUENCY (HIGH BYTE)									00-FF	FF						
8A	TUNING FREQUENCY (LOW BYTE)									00-FF	FF						POS 65
8B	TUNING FREQUENCY (HIGH BYTE)									00-FF	FF						
8C	TUNING FREQUENCY (LOW BYTE)									00-FF	FF						POS 66
8D	TUNING FREQUENCY (HIGH BYTE)									00-FF	FF						
8E	TUNING FREQUENCY (LOW BYTE)									00-FF	FF						POS 67
8F	TUNING FREQUENCY (HIGH BYTE)									00-FF	FF						
90	TUNING FREQUENCY (LOW BYTE)									00-FF	FF						POS 68
91	TUNING FREQUENCY (HIGH BYTE)									00-FF	FF						
92	TUNING FREQUENCY (LOW BYTE)									00-FF	FF						POS 69
93	TUNING FREQUENCY (HIGH BYTE)									00-FF	FF						
94	TUNING FREQUENCY (LOW BYTE)									00-FF	FF						POS 70
95	TUNING FREQUENCY (HIGH BYTE)									00-FF	FF						
96	TUNING FREQUENCY (LOW BYTE)									00-FF	FF						POS 71
97	TUNING FREQUENCY (HIGH BYTE)									00-FF	FF						
98	TUNING FREQUENCY (LOW BYTE)									00-FF	FF						POS 72
99	TUNING FREQUENCY (HIGH BYTE)									00-FF	FF						
9A	TUNING FREQUENCY (LOW BYTE)									00-FF	FF						POS 73
9B	TUNING FREQUENCY (HIGH BYTE)									00-FF	FF						
9C	TUNING FREQUENCY (LOW BYTE)									00-FF	FF						POS 74
9D	TUNING FREQUENCY (HIGH BYTE)									00-FF	FF						
9E	TUNING FREQUENCY (LOW BYTE)									00-FF	FF						POS 75
9F	TUNING FREQUENCY (HIGH BYTE)									00-FF	FF						
A0	TUNING FREQUENCY (LOW BYTE)									00-FF	FF						POS 76
A1	TUNING FREQUENCY (HIGH BYTE)									00-FF	FF						
A2	TUNING FREQUENCY (LOW BYTE)									00-FF	FF						POS 77
A3	TUNING FREQUENCY (HIGH BYTE)									00-FF	FF						
A4	TUNING FREQUENCY (LOW BYTE)									00-FF	FF						POS 78
A5	TUNING FREQUENCY (HIGH BYTE)									00-FF	FF						
A6	TUNING FREQUENCY (LOW BYTE)									00-FF	FF						POS 79
A7	TUNING FREQUENCY (HIGH BYTE)									00-FF	FF						
A8	TUNING FREQUENCY (LOW BYTE)									00-FF	FF						POS 80
A9	TUNING FREQUENCY (HIGH BYTE)									00-FF	FF						
AA	TUNING FREQUENCY (LOW BYTE)									00-FF	FF						POS 81
AB	TUNING FREQUENCY (HIGH BYTE)									00-FF	FF						
AC	TUNING FREQUENCY (LOW BYTE)									00-FF	FF						POS 82
AD	TUNING FREQUENCY (HIGH BYTE)									00-FF	FF						
AE	TUNING FREQUENCY (LOW BYTE)									00-FF	FF						POS 83
AF	TUNING FREQUENCY (HIGH BYTE)									00-FF	FF						
B0	TUNING FREQUENCY (LOW BYTE)									00-FF	FF						POS 84
B1	TUNING FREQUENCY (HIGH BYTE)									00-FF	FF						
B2	TUNING FREQUENCY (LOW BYTE)									00-FF	FF						POS 85
B3	TUNING FREQUENCY (HIGH BYTE)									00-FF	FF						
B4	TUNING FREQUENCY (LOW BYTE)									00-FF	FF						POS 86
B5	TUNING FREQUENCY (HIGH BYTE)									00-FF	FF						
B6	TUNING FREQUENCY (LOW BYTE)									00-FF	FF						POS 87
B7	TUNING FREQUENCY (HIGH BYTE)									00-FF	FF						
B8	TUNING FREQUENCY (LOW BYTE)									00-FF	FF						POS 88
B9	TUNING FREQUENCY (HIGH BYTE)									00-FF	FF						
BA	TUNING FREQUENCY (LOW BYTE)									00-FF	FF						POS 89
BB	TUNING FREQUENCY (HIGH BYTE)									00-FF	FF						
BC	TUNING FREQUENCY (LOW BYTE)									00-FF	FF						POS 90
BD	TUNING FREQUENCY (HIGH BYTE)									00-FF	FF						
BE	TUNING FREQUENCY (LOW BYTE)									00-FF	FF						POS 91
BF	TUNING FREQUENCY (HIGH BYTE)									00-FF	FF						
MODEL									MODEL								
LETTER NO.									LETTER NO.								

MEMORY MAP (Continued)

MODEL : GA-7_IXC129WJN1	SEM PCD SOFTWARE GROUP	TV DESIGN ENGINEERING	TV PRODUCTION ENGINEERING
	ISSUED DATE :1 MARCH 2007	ISSUED DATE :	ISSUED DATE : 28.JUNE.2007
EEPROM CHECK DATA LIST 4	MANAGER	MANAGER	MANAGER MATSUNAGA
	CHIEF	CHIEF	CHIEF ISMAIL
	ENGINEER Tan	ENGINEER	ENGINEER CHIN

SLAVE ADDRESS : A0(00-FF) A2(100-1FF) A4(200-2FF) A6(300-3FF) A8(400-4FF) AA(500-5FF) AC(600-6FF) AE(700-7FF)

ADDRESS	DATA								MICON	EEPROM	EEPROM	CHASSIS		CTV FINAL		LAST INITIAL	
(HEX)	D7	D6	D5	D4	D3	D2	D1	D0	DEFAULT	RANGE	WRITE(CPU)	CHECK DATA	CHECK TYPE	CHECK DATA	CHECK TYPE	SETTING DATA	REMARK
C0	TUNING FREQUENCY (LOW BYTE)									00-FF	FF						POS 92
C1	TUNING FREQUENCY (HIGH BYTE)									00-FF	FF						
C2	TUNING FREQUENCY (LOW BYTE)									00-FF	FF						POS 93
C3	TUNING FREQUENCY (HIGH BYTE)									00-FF	FF						
C4	TUNING FREQUENCY (LOW BYTE)									00-FF	FF						POS 94
C5	TUNING FREQUENCY (HIGH BYTE)									00-FF	FF						
C6	TUNING FREQUENCY (LOW BYTE)									00-FF	FF						POS 95
C7	TUNING FREQUENCY (HIGH BYTE)									00-FF	FF						
C8	TUNING FREQUENCY (LOW BYTE)									00-FF	FF						POS 96
C9	TUNING FREQUENCY (HIGH BYTE)									00-FF	FF						
CA	TUNING FREQUENCY (LOW BYTE)									00-FF	FF						POS 97
CB	TUNING FREQUENCY (HIGH BYTE)									00-FF	FF						
CC	TUNING FREQUENCY (LOW BYTE)									00-FF	FF						POS 98
CD	TUNING FREQUENCY (HIGH BYTE)									00-FF	FF						
CE	TUNING FREQUENCY (LOW BYTE)									00-FF	FF						POS 99
CF	TUNING FREQUENCY (HIGH BYTE)									00-FF	FF						
D0	FAVORITE CHANNEL 1								0A	00-FB	0A						POS 10
D1	FAVORITE CHANNEL 2								14	00-FB	14						POS 20
D2	FAVORITE CHANNEL 3								1E	00-FB	1E						POS 30
D3	FAVORITE CHANNEL 4								28	00-FB	28						POS 40
D4					CHILD LOCK PASSWORD 1				00	00-09	00						
D5					CHILD LOCK PASSWORD 2				00	00-09	00						
D6					CHILD LOCK PASSWORD 3				00	00-09	00						
D7					CHILD LOCK PASSWORD 4				00	00-09	00						
D8								LOCK TV	00	00-01	00						
D9								MP-IN	01	00-01	01						
DA							AV MODE		00	00-02	00						
DB																	
DC																	
DD																	
DE				1/2/3 DIGIT ENTRY					08	00-18	EF						
DF																	
E0	POS 7	POS 6	POS 5	POS4	POS 3	POS 2	POS 1	POS 0	FF	00-FF	FF						
E1	POS15	POS14	POS13	POS12	POS11	POS10	POS 9	POS 8	FF	00-FF	FF						
E2	POS23	POS22	POS21	POS20	POS19	POS18	POS17	POS16	FF	00-FF	FF						
E3	POS31	POS30	POS29	POS28	POS27	POS26	POS25	POS24	FF	00-FF	FF						
E4	POS39	POS38	POS37	POS36	POS35	POS34	POS33	POS32	FF	00-FF	FF						
E5	POS47	POS46	POS45	POS44	POS43	POS42	POS41	POS40	FF	00-FF	FF						
E6	POS55	POS54	POS53	POS52	POS51	POS50	POS49	POS48	FF	00-FF	FF						1= AFT ON, 0=AFT OFF
E7	POS63	POS62	POS61	POS60	POS59	POS58	POS57	POS56	FF	00-FF	FF						
E8	POS71	POS70	POS69	POS68	POS67	POS66	POS65	POS64	FF	00-FF	FF						
E9	POS79	POS78	POS77	POS76	POS75	POS74	POS73	POS72	FF	00-FF	FF						
EA	POS87	POS86	POS85	POS84	POS83	POS82	POS81	POS80	FF	00-FF	FF						
EB	POS95	POS94	POS93	POS92	POS91	POS90	POS89	POS88	FF	00-FF	FF						
EC	POS103	POS102	POS101	POS100	POS99	POS98	POS97	POS96	FF	00-0F	FF						
ED																	
EE	Blue Back		TEXT (Not Use)			LANGUAGE			00	00-FF	00						
EF			LAST VOLUME						00	00-3C	3C						
F0	POS 7	POS 6	POS 5	POS4	POS 3	POS 2	POS 1	POS 0	01	00-FF	01						
F1	POS15	POS14	POS13	POS12	POS11	POS10	POS 9	POS 8	00	00-FF	00						
F2	POS23	POS22	POS21	POS20	POS19	POS18	POS17	POS16	00	00-FF	00						
F3	POS31	POS30	POS29	POS28	POS27	POS26	POS25	POS24	00	00-FF	00						
F4	POS39	POS38	POS37	POS36	POS35	POS34	POS33	POS32	00	00-FF	00						
F5	POS47	POS46	POS45	POS44	POS43	POS42	POS41	POS40	00	00-FF	00						
F6	POS55	POS54	POS53	POS52	POS51	POS50	POS49	POS48	00	00-FF	00						1= SKIP ON, 0=SKIP OFF
F7	POS63	POS62	POS61	POS60	POS59	POS58	POS57	POS56	00	00-FF	00						
F8	POS71	POS70	POS69	POS68	POS67	POS66	POS65	POS64	00	00-FF	00						
F9	POS79	POS78	POS77	POS76	POS75	POS74	POS73	POS72	00	00-FF	00						
FA	POS87	POS86	POS85	POS84	POS83	POS82	POS81	POS80	00	00-FF	00						
FB	POS95	POS94	POS93	POS92	POS91	POS90	POS89	POS88	00	00-FF	00						
FC	POS103	POS102	POS101	POS100	POS99	POS98	POS97	POS96	00	00-0F	00						
FD	POWER								AA	AA(On), 55(Off)	AA						
FE																	
FF																	
MODEL									MODEL								
LETTER NO.									LETTER NO.								

MEMORY MAP (Continued)

MODEL : GA-7_IXC129WJN1	SEM PCD SOFTWARE GROUP	TV DESIGN ENGINEERING	TV PRODUCTION ENGINEERING
	ISSUED DATE :1 MARCH 2007	ISSUED DATE :	ISSUED DATE : 28.JUNE.2007
EEPROM CHECK DATA LIST 5	MANAGER	MANAGER	MANAGER MATSUNAGA
	CHIEF	CHIEF	CHIEF ISMAIL
	ENGINEER Tan	ENGINEER	ENGINEER CHIN

SLAVE ADDRESS : A0(00-FF) A2(100-1FF) A4(200-2FF) A6(300-3FF) A8(400-4FF) AA(500-5FF) AC(600-6FF) AE(700-7FF)

ADDRESS	DATA								MICON	EEPROM	EEPROM	CHASSIS		CTV FINAL		LAST INITIAL	REMARK
(HEX)	D7	D6	D5	D4	D3	D2	D1	D0	DEFAULT	RANGE	WRITE(CPU)	CHECK DATA	CHECK TYPE	CHECK DATA	CHECK TYPE	SETTING DATA	
100	ANT-BOOSTER (POS0)		S-SYSTEM (POS0)			C-SYSTEM (POS0)			00	00-9C	00						
101	ANT-BOOSTER (POS1)		S-SYSTEM (POS1)			C-SYSTEM (POS1)			00	00-9C	00						S-SYSTEM
102	ANT-BOOSTER (POS2)		S-SYSTEM (POS2)			C-SYSTEM (POS2)			00	00-9C	00						0: B/G
103	ANT-BOOSTER (POS3)		S-SYSTEM (POS3)			C-SYSTEM (POS3)			00	00-9C	00						1: I
104	ANT-BOOSTER (POS4)		S-SYSTEM (POS4)			C-SYSTEM (POS4)			00	00-9C	00						2: D/K
105	ANT-BOOSTER (POS5)		S-SYSTEM (POS5)			C-SYSTEM (POS5)			00	00-9C	00						3: M
106	ANT-BOOSTER (POS6)		S-SYSTEM (POS6)			C-SYSTEM (POS6)			00	00-9C	00						
107	ANT-BOOSTER (POS7)		S-SYSTEM (POS7)			C-SYSTEM POS7)			00	00-9C	00						C-SYSTEM
108	ANT-BOOSTER (POS8)		S-SYSTEM (POS8)			C-SYSTEM (POS8)			00	00-9C	00						0: AUTO
109	ANT-BOOSTER (POS9)		S-SYSTEM (POS9)			C-SYSTEM (POS9)			00	00-9C	00						1: PAL
10A	ANT-BOOSTER (POS10)		S-SYSTEM (POS10)			C-SYSTEM (POS10)			00	00-9C	00						2:SECAM
10B	ANT-BOOSTER (POS11)		S-SYSTEM (POS11)			C-SYSTEM (POS11)			00	00-9C	00						3: N443
10C	ANT-BOOSTER (POS12)		S-SYSTEM (POS12)			C-SYSTEM (POS12)			00	00-9C	00						4:N358
10D	ANT-BOOSTER (POS13)		S-SYSTEM (POS13)			C-SYSTEM (POS13)			00	00-9C	00						
10E	ANT-BOOSTER (POS14)		S-SYSTEM (POS14)			C-SYSTEM (POS14)			00	00-9C	00						ANT-BOOSTER
10F	ANT-BOOSTER (POS15)		S-SYSTEM (POS15)			C-SYSTEM (POS15)			00	00-9C	00						0: OFF
110	ANT-BOOSTER (POS16)		S-SYSTEM (POS16)			C-SYSTEM (POS16)			00	00-9C	00						1: ON I
111	ANT-BOOSTER (POS17)		S-SYSTEM (POS17)			C-SYSTEM (POS17)			00	00-9C	00						2: ON II
112	ANT-BOOSTER (POS18)		S-SYSTEM (POS18)			C-SYSTEM (POS18)			00	00-9C	00						
113	ANT-BOOSTER (POS19)		S-SYSTEM (POS19)			C-SYSTEM (POS19)			00	00-9C	00						
114	ANT-BOOSTER (POS20)		S-SYSTEM (POS20)			C-SYSTEM (POS20)			00	00-9C	00						
115	ANT-BOOSTER (POS21)		S-SYSTEM (POS21)			C-SYSTEM (POS21)			00	00-9C	00						
116	ANT-BOOSTER (POS22)		S-SYSTEM (POS22)			C-SYSTEM (POS22)			00	00-9C	00						
117	ANT-BOOSTER (POS23)		S-SYSTEM (POS23)			C-SYSTEM (POS23)			00	00-9C	00						
118	ANT-BOOSTER (POS24)		S-SYSTEM (POS24)			C-SYSTEM (POS24)			00	00-9C	00						
119	ANT-BOOSTER (POS25)		S-SYSTEM (POS25)			C-SYSTEM (POS25)			00	00-9C	00						
11A	ANT-BOOSTER (POS26)		S-SYSTEM (POS26)			C-SYSTEM (POS26)			00	00-9C	00						
11B	ANT-BOOSTER (POS27)		S-SYSTEM (POS27)			C-SYSTEM (POS27)			00	00-9C	00						
11C	ANT-BOOSTER (POS28)		S-SYSTEM (POS28)			C-SYSTEM (POS28)			00	00-9C	00						
11D	ANT-BOOSTER (POS29)		S-SYSTEM (POS29)			C-SYSTEM (POS29)			00	00-9C	00						
11E	ANT-BOOSTER (POS30)		S-SYSTEM (POS30)			C-SYSTEM (POS30)			00	00-9C	00						
11F	ANT-BOOSTER (POS31)		S-SYSTEM (POS31)			C-SYSTEM (POS31)			00	00-9C	18						
120	ANT-BOOSTER (POS32)		S-SYSTEM (POS32)			C-SYSTEM (POS32)			00	00-9C	18						
121	ANT-BOOSTER (POS33)		S-SYSTEM (POS33)			C-SYSTEM (POS33)			00	00-9C	18						
122	ANT-BOOSTER (POS34)		S-SYSTEM (POS34)			C-SYSTEM (POS34)			00	00-9C	18						
123	ANT-BOOSTER (POS35)		S-SYSTEM (POS35)			C-SYSTEM (POS35)			00	00-9C	18						
124	ANT-BOOSTER (POS36)		S-SYSTEM (POS36)			C-SYSTEM (POS36)			00	00-9C	18						
125	ANT-BOOSTER (POS37)		S-SYSTEM (POS37)			C-SYSTEM (POS37)			00	00-9C	18						
126	ANT-BOOSTER (POS38)		S-SYSTEM (POS38)			C-SYSTEM (POS38)			00	00-9C	18						
127	ANT-BOOSTER (POS39)		S-SYSTEM (POS39)			C-SYSTEM (POS39)			00	00-9C	00						
128	ANT-BOOSTER (POS40)		S-SYSTEM (POS40)			C-SYSTEM (POS40)			00	00-9C	00						
129	ANT-BOOSTER (POS41)		S-SYSTEM (POS41)			C-SYSTEM (POS41)			00	00-9C	00						
12A	ANT-BOOSTER (POS42)		S-SYSTEM (POS42)			C-SYSTEM (POS42)			00	00-9C	00						
12B	ANT-BOOSTER (POS43)		S-SYSTEM (POS43)			C-SYSTEM (POS43)			00	00-9C	00						
12C	ANT-BOOSTER (POS44)		S-SYSTEM (POS44)			C-SYSTEM (POS44)			00	00-9C	00						
12D	ANT-BOOSTER (POS45)		S-SYSTEM (POS45)			C-SYSTEM (POS45)			00	00-9C	00						
12E	ANT-BOOSTER (POS46)		S-SYSTEM (POS46)			C-SYSTEM (POS46)			00	00-9C	00						
12F	ANT-BOOSTER (POS47)		S-SYSTEM (POS47)			C-SYSTEM (POS47)			00	00-9C	00						
130	ANT-BOOSTER (POS48)		S-SYSTEM (POS48)			C-SYSTEM (POS48)			00	00-9C	00						
131	ANT-BOOSTER (POS49)		S-SYSTEM (POS49)			C-SYSTEM (POS49)			00	00-9C	00						
132	ANT-BOOSTER (POS50)		S-SYSTEM (POS50)			C-SYSTEM (POS50)			00	00-9C	00						
133	ANT-BOOSTER (POS51)		S-SYSTEM (POS51)			C-SYSTEM (POS51)			00	00-9C	00						
134	ANT-BOOSTER (POS52)		S-SYSTEM (POS52)			C-SYSTEM (POS52)			00	00-9C	00						
135	ANT-BOOSTER (POS53)		S-SYSTEM (POS53)			C-SYSTEM (POS53)			00	00-9C	00						
136	ANT-BOOSTER (POS54)		S-SYSTEM (POS54)			C-SYSTEM (POS54)			00	00-9C	00						
137	ANT-BOOSTER (POS55)		S-SYSTEM (POS55)			C-SYSTEM (POS55)			00	00-9C	00						
138	ANT-BOOSTER (POS56)		S-SYSTEM (POS56)			C-SYSTEM (POS56)			00	00-9C	00						
139	ANT-BOOSTER (POS57)		S-SYSTEM (POS57)			C-SYSTEM (POS57)			00	00-9C	00						
13A	ANT-BOOSTER (POS58)		S-SYSTEM (POS58)			C-SYSTEM (POS58)			00	00-9C	00						
13B	ANT-BOOSTER (POS59)		S-SYSTEM (POS59)			C-SYSTEM (POS59)			00	00-9C	00						
13C	ANT-BOOSTER (POS60)		S-SYSTEM (POS60)			C-SYSTEM (POS60)			00	00-9C	00						
13D	ANT-BOOSTER (POS61)		S-SYSTEM (POS61)			C-SYSTEM (POS61)			00	00-9C	00						
13E	ANT-BOOSTER (POS62)		S-SYSTEM (POS62)			C-SYSTEM (POS62)			00	00-9C	00						
13F	ANT-BOOSTER (POS63)		S-SYSTEM (POS63)			C-SYSTEM (POS63)			00	00-9C	00						
MODEL									MODEL								
LETTER NO.									LETTER NO.								

MEMORY MAP (Continued)

MODEL : GA-7_IXC129WJN1	SEM PCD SOFTWARE GROUP	TV DESIGN ENGINEERING	TV PRODUCTION ENGINEERING
	ISSUED DATE :1 MARCH 2007	ISSUED DATE :	ISSUED DATE : 28.JUNE.2007
EEPROM CHECK DATA LIST 6	MANAGER	MANAGER	MANAGER MATSUNAGA
	CHIEF	CHIEF	CHIEF ISMAIL
	ENGINEER Tan	ENGINEER	ENGINEER CHIN

SLAVE ADDRESS : A0(00-FF) A2(100-1FF) A4(200-2FF) A6(300-3FF) A8(400-4FF) AA(500-5FF) AC(600-6FF) AE(700-7FF)

ADDRESS	DATA								MICON	EEPROM	EEPROM	CHASSIS		CTV FINAL		LAST INITIAL	REMARK
(HEX)	D7	D6	D5	D4	D3	D2	D1	D0	DEFAULT	RANGE	WRITE(CPU)	CHECK DATA	CHECK TYPE	CHECK DATA	CHECK TYPE	SETTING DATA	
140	ANT-BOOSTER (POS64)		S-SYSTEM (POS64)			C-SYSTEM (POS64)			00	00-9C	00						
141	ANT-BOOSTER (POS65)		S-SYSTEM (POS65)			C-SYSTEM (POS65)			00	00-9C	00						
142	ANT-BOOSTER (POS66)		S-SYSTEM (POS66)			C-SYSTEM (POS66)			00	00-9C	00						
143	ANT-BOOSTER (POS67)		S-SYSTEM (POS67)			C-SYSTEM (POS67)			00	00-9C	00						
144	ANT-BOOSTER (POS68)		S-SYSTEM (POS68)			C-SYSTEM (POS68)			00	00-9C	00						
145	ANT-BOOSTER (POS69)		S-SYSTEM (POS69)			C-SYSTEM (POS69)			00	00-9C	00						
146	ANT-BOOSTER (POS70)		S-SYSTEM (POS70)			C-SYSTEM (POS70)			00	00-9C	00						
147	ANT-BOOSTER (POS71)		S-SYSTEM (POS71)			C-SYSTEM POS71)			00	00-9C	00						
148	ANT-BOOSTER (POS72)		S-SYSTEM (POS72)			C-SYSTEM (POS72)			00	00-9C	00						
149	ANT-BOOSTER (POS73)		S-SYSTEM (POS73)			C-SYSTEM (POS73)			00	00-9C	00						
14A	ANT-BOOSTER (POS74)		S-SYSTEM (POS74)			C-SYSTEM (POS74)			00	00-9C	00						
14B	ANT-BOOSTER (POS75)		S-SYSTEM (POS75)			C-SYSTEM (POS75)			00	00-9C	00						
14C	ANT-BOOSTER (POS76)		S-SYSTEM (POS76)			C-SYSTEM (POS76)			00	00-9C	00						
14D	ANT-BOOSTER (POS77)		S-SYSTEM (POS77)			C-SYSTEM (POS77)			00	00-9C	00						
14E	ANT-BOOSTER (POS78)		S-SYSTEM (POS78)			C-SYSTEM (POS78)			00	00-9C	00						
14F	ANT-BOOSTER (POS79)		S-SYSTEM (POS79)			C-SYSTEM (POS79)			00	00-9C	00						
150	ANT-BOOSTER (POS80)		S-SYSTEM (POS80)			C-SYSTEM (POS80)			00	00-9C	00						
151	ANT-BOOSTER (POS81)		S-SYSTEM (POS81)			C-SYSTEM (POS81)			00	00-9C	00						
152	ANT-BOOSTER (POS82)		S-SYSTEM (POS82)			C-SYSTEM (POS82)			00	00-9C	00						
153	ANT-BOOSTER (POS83)		S-SYSTEM (POS83)			C-SYSTEM (POS83)			00	00-9C	00						
154	ANT-BOOSTER (POS84)		S-SYSTEM (POS84)			C-SYSTEM (POS84)			00	00-9C	00						
155	ANT-BOOSTER (POS85)		S-SYSTEM (POS85)			C-SYSTEM (POS85)			00	00-9C	00						
156	ANT-BOOSTER (POS86)		S-SYSTEM (POS86)			C-SYSTEM (POS86)			00	00-9C	00						
157	ANT-BOOSTER (POS87)		S-SYSTEM (POS87)			C-SYSTEM (POS87)			00	00-9C	00						
158	ANT-BOOSTER (POS88)		S-SYSTEM (POS88)			C-SYSTEM (POS88)			00	00-9C	00						
159	ANT-BOOSTER (POS89)		S-SYSTEM (POS89)			C-SYSTEM (POS89)			00	00-9C	00						
15A	ANT-BOOSTER (POS90)		S-SYSTEM (POS90)			C-SYSTEM (POS90)			00	00-9C	00						
15B	ANT-BOOSTER (POS91)		S-SYSTEM (POS91)			C-SYSTEM (POS91)			00	00-9C	00						
15C	ANT-BOOSTER (POS92)		S-SYSTEM (POS92)			C-SYSTEM (POS92)			00	00-9C	00						
15D	ANT-BOOSTER (POS93)		S-SYSTEM (POS93)			C-SYSTEM (POS93)			00	00-9C	00						
15E	ANT-BOOSTER (POS94)		S-SYSTEM (POS94)			C-SYSTEM (POS94)			00	00-9C	00						
15F	ANT-BOOSTER (POS95)		S-SYSTEM (POS95)			C-SYSTEM (POS95)			00	00-9C	00						
160	ANT-BOOSTER (POS96)		S-SYSTEM (POS96)			C-SYSTEM (POS96)			00	00-9C	00						
161	ANT-BOOSTER (POS97)		S-SYSTEM (POS97)			C-SYSTEM (POS97)			00	00-9C	00						
162	ANT-BOOSTER (POS98)		S-SYSTEM (POS98)			C-SYSTEM (POS98)			00	00-9C	00						
163	ANT-BOOSTER (POS99)		S-SYSTEM (POS99)			C-SYSTEM (POS99)			00	00-9C	00						
164		C-SYSTEM (AV2)				C-SYSTEM (AV1)			00	00-44	00						
165	SLV1 (HIGH)								00	00-FF	00						
166	SLV1 (LOW)								00	00-FF	00						
167	SLV2 (HIGH)								00	00-FF	00						
168	SLV2 (LOW)								00	00-FF	00						
169	SLV3 (HIGH)								00	00-FF	00						
16A	SLV3 (LOW)								00	00-FF	00						
16B	SLV4 (HIGH)								00	00-FF	00						
16C	SLV4 (LOW)								00	00-FF	00						
16D	SLV5 (HIGH)								00	00-FF	00						
16E	SLV5 (LOW)								00	00-FF	00						
16F	SLV6 (HIGH)								00	00-FF	00						
170	SLV6 (LOW)								00	00-FF	00						
171	SLV7 (HIGH)								00	00-FF	00						
172	SLV7 (LOW)								00	00-FF	00						
173								TV/AV	00	0(TV), 1(AV1), 2(AV2)	00						
174	LAST CHANNEL POSITION								01	00-F9	0C						
175	FLASH BACK POSITION								01	00-FF	01						
176	ROM CORRECTION-1 ID									00-FF	FF						Valid (A0)
177	ROM CORRECTION-1 HIGH BYTE ADDRESS									00-FF	FF						
178	ROM CORRECTION-1 LOW BYTE ADDRESS									00-FF	FF						
179	ROM CORRECTION-1 DATA LENGTH									00-FF	FF						
17A	ROM CORRECTION-1 CHECKSUM									00-FF	FF						
17B	ROM CORRECTION-2 ID									00-FF	FF						Valid (A0)
17C	ROM CORRECTION-2 HIGH BYTE ADDRESS									00-FF	FF						
17D	ROM CORRECTION-2 LOW BYTE ADDRESS									00-FF	FF						
17E	ROM CORRECTION-2 DATA LENGTH									00-FF	FF						
17F	ROM CORRECTION-2 CHECKSUM									00-FF	FF						
MODEL									MODEL								
MTV NO.																	
LETTER NO.									LETTER NO.								

MEMORY MAP (Continued)

MODEL : GA-7_IXC129WJN1	SEM PCD SOFTWARE GROUP	TV DESIGN ENGINEERING	TV PRODUCTION ENGINEERING
	ISSUED DATE :1 MARCH 2007	ISSUED DATE :	ISSUED DATE : 28.JUNE.2007
EEPROM CHECK DATA LIST 7	MANAGER	MANAGER	MANAGER MATSUNAGA
	CHIEF	CHIEF	CHIEF ISMAIL
	ENGINEER Tan	ENGINEER	ENGINEER CHIN

SLAVE ADDRESS : A0(00-FF) A2(100-1FF) A4(200-2FF) A6(300-3FF) A8(400-4FF) AA(500-5FF) AC(600-6FF) AE(700-7FF)

ADDRESS	DATA								MICON	EEPROM	EEPROM	CHASSIS		CTV FINAL		LAST INITIAL	
(HEX)	D7	D6	D5	D4	D3	D2	D1	D0	DEFAULT	RANGE	WRITE(CPU)	CHECK DATA	CHECK TYPE	CHECK DATA	CHECK TYPE	SETTING DATA	REMARK
180	ROM CORRECTION-1 CODE									00-FF	FF						
181	ROM CORRECTION-1 CODE									00-FF	FF						
182	ROM CORRECTION-1 CODE									00-FF	FF						
183	ROM CORRECTION-1 CODE									00-FF	FF						
184	ROM CORRECTION-1 CODE									00-FF	FF						
185	ROM CORRECTION-1 CODE									00-FF	FF						
186	ROM CORRECTION-1 CODE									00-FF	FF						
187	ROM CORRECTION-1 CODE									00-FF	FF						
188	ROM CORRECTION-1 CODE									00-FF	FF						
189	ROM CORRECTION-1 CODE									00-FF	FF						
18A	ROM CORRECTION-1 CODE									00-FF	FF						
18B	ROM CORRECTION-1 CODE									00-FF	FF						
18C	ROM CORRECTION-1 CODE									00-FF	FF						
18D	ROM CORRECTION-1 CODE									00-FF	FF						
18E	ROM CORRECTION-1 CODE									00-FF	FF						
18F	ROM CORRECTION-1 CODE									00-FF	FF						
190	ROM CORRECTION-1 CODE									00-FF	FF						
191	ROM CORRECTION-1 CODE									00-FF	FF						
192	ROM CORRECTION-1 CODE									00-FF	FF						
193	ROM CORRECTION-1 CODE									00-FF	FF						
194	ROM CORRECTION-1 CODE									00-FF	FF						
195	ROM CORRECTION-1 CODE									00-FF	FF						
196	ROM CORRECTION-1 CODE									00-FF	FF						
197	ROM CORRECTION-1 CODE									00-FF	FF						
198	ROM CORRECTION-1 CODE									00-FF	FF						
199	ROM CORRECTION-1 CODE									00-FF	FF						
19A	ROM CORRECTION-1 CODE									00-FF	FF						
19B	ROM CORRECTION-1 CODE									00-FF	FF						
19C	ROM CORRECTION-1 CODE									00-FF	FF						
19D	ROM CORRECTION-1 CODE									00-FF	FF						
19E	ROM CORRECTION-1 CODE									00-FF	FF						
19F	ROM CORRECTION-1 CODE									00-FF	FF						
1A0	ROM CORRECTION-2 CODE									00-FF	FF						
1A1	ROM CORRECTION-2 CODE									00-FF	FF						
1A2	ROM CORRECTION-2 CODE									00-FF	FF						
1A3	ROM CORRECTION-2 CODE									00-FF	FF						
1A4	ROM CORRECTION-2 CODE									00-FF	FF						
1A5	ROM CORRECTION-2 CODE									00-FF	FF						
1A6	ROM CORRECTION-2 CODE									00-FF	FF						
1A7	ROM CORRECTION-2 CODE									00-FF	FF						
1A8	ROM CORRECTION-2 CODE									00-FF	FF						
1A9	ROM CORRECTION-2 CODE									00-FF	FF						
1AA	ROM CORRECTION-2 CODE									00-FF	FF						
1AB	ROM CORRECTION-2 CODE									00-FF	FF						
1AC	ROM CORRECTION-2 CODE									00-FF	FF						
1AD	ROM CORRECTION-2 CODE									00-FF	FF						
1AE	ROM CORRECTION-2 CODE									00-FF	FF						
1AF	ROM CORRECTION-2 CODE									00-FF	FF						
1B0	ROM CORRECTION-2 CODE									00-FF	FF						
1B1	ROM CORRECTION-2 CODE									00-FF	FF						
1B2	ROM CORRECTION-2 CODE									00-FF	FF						
1B3	ROM CORRECTION-2 CODE									00-FF	FF						
1B4	ROM CORRECTION-2 CODE									00-FF	FF						
1B5	ROM CORRECTION-2 CODE									00-FF	FF						
1B6	ROM CORRECTION-2 CODE									00-FF	FF						
1B7	ROM CORRECTION-2 CODE									00-FF	FF						
1B8	ROM CORRECTION-2 CODE									00-FF	FF						
1B9	ROM CORRECTION-2 CODE									00-FF	FF						
1BA	ROM CORRECTION-2 CODE									00-FF	FF						
1BB	ROM CORRECTION-2 CODE									00-FF	FF						
1BC	ROM CORRECTION-2 CODE									00-FF	FF						
1BD	ROM CORRECTION-2 CODE									00-FF	FF						
1BE	ROM CORRECTION-2 CODE									00-FF	FF						
1BF	ROM CORRECTION-2 CODE									00-FF	FF						
MODEL									MODEL								
LETTER NO.									LETTER NO.								

MEMORY MAP (Continued)

MODEL : GA-7_IXC129WJN1	SEM PCD SOFTWARE GROUP	TV DESIGN ENGINEERING	TV PRODUCTION ENGINEERING
	ISSUED DATE :1 MARCH 2007	ISSUED DATE :	ISSUED DATE : 28.JUNE.2007
EEPROM CHECK DATA LIST 8	MANAGER	MANAGER	MANAGER MATSUNAGA
	CHIEF	CHIEF	CHIEF ISMAIL
	ENGINEER Tan	ENGINEER	ENGINEER CHIN

SLAVE ADDRESS : A0(00-FF) A2(100-1FF) A4(200-2FF) A6(300-3FF) A8(400-4FF) AA(500-5FF) AC(600-6FF) AE(700-7FF)

ADDRESS	DATA								MICON	EEPROM	EEPROM	CHASSIS		CTV FINAL		LAST INITIAL	
(HEX)	D7	D6	D5	D4	D3	D2	D1	D0	DEFAULT	RANGE	WRITE(CPU)	CHECK DATA	CHECK TYPE	CHECK DATA	CHECK TYPE	SETTING DATA	REMARK
1C0																	
1C1																	
1C2																	
1C3																	
1C4																	
1C5																	
1C6																	
1C7																	
1C8																	
1C9																	
1CA																	
1CB																	
1CC																	
1CD																	
1CE																	
1CF																	
1D0																	
1D1																	
1D2																	
1D3																	
1D4																	
1D5																	
1D6																	
1D7																	
1D8																	
1D9																	
1DA																	
1DB																	
1DC																	
1DD																	
1DE																	
1DF																	
1E0																	
1E1																	
1E2																	
1E3																	
1E4																	
1E5																	
1E6																	
1E7																	
1E8																	
1E9																	
1EA																	
1EB																	
1EC																	
1ED																	
1EE																	
1EF																	
1F0																	
1F1																	
1F2																	
1F3																	
1F4																	
1F5																	
1F6																	
1F7																	
1F8																	
1F9																	
1FA																	
1FB																	
1FC																	
1FD																	
1FE																	
1FF																	
MODEL									MODEL								
LETTER NO.									LETTER NO.								

MEMORY MAP (Continued)

MODEL : GA-7_IXC129WJN1	SEM PCD SOFTWARE GROUP	TV DESIGN ENGINEERING	TV PRODUCTION ENGINEERING
	ISSUED DATE :1 MARCH 2007	ISSUED DATE :	ISSUED DATE : 28.JUNE.2007
EEPROM CHECK DATA LIST 9	MANAGER	MANAGER	MANAGER MATSUNAGA
	CHIEF	CHIEF	CHIEF ISMAIL
	ENGINEER Tan	ENGINEER	ENGINEER CHIN

SLAVE ADDRESS : A0(00-FF) A2(100-1FF) A4(200-2FF) A6(300-3FF) A8(400-4FF) AA(500-5FF) AC(600-6FF) AE(700-7FF)

ADDRESS	DATA								MICON	EEPROM	EEPROM	CHASSIS		CTV FINAL		LAST INITIAL	REMARK
(HEX)	D7	D6	D5	D4	D3	D2	D1	D0	DEFAULT	RANGE	WRITE(CPU)	CHECK DATA	CHECK TYPE	CHECK DATA	CHECK TYPE	SETTING DATA	
200		R-DRIVE (V00)							3F	00-7F	3F						
201		B-DRIVE (V00)							3F	00-7F	3F						
202	R-CUTOFF (V00)								7F	00-FF	7F						
203	G-CUTOFF (V00)								7F	00-FF	7F						
204	B-CUTOFF (V00)								7F	00-FF	7F						
205		RF-AGC (V01)							32	00-7F	2A						
206			VIF-VCO (V02)						1F	00-3F	1F						
207						H-VCO (V03)			03	00-07	03						
208		SUB CONTRAST (V04)							64	00-7F	64						
209		SUB COLOUR (V05)							3F	00-7F	47						
20A	SUB BRIGHTNESS (V06)								7F	00-FF	7F						
20B		SUB TINT (V07)							3F	00-7F	3D						
20C			SUB SHARPNESS PRE (V08)						2B	00-3F	26						
20D		SUB-COLOUR-YUV (V09)							5A	00-7F	5A						
20E		SUB-TINT-YUV (V10)							3F	00-7F	3F						
20F			V-SIZE-50Hz (V11)						26	00-3F	27						
210						V-SHIFT-50Hz (V12)			03	00-07	02						
211				H-SHIFT-50Hz (V13)					09	00-1F	12						
212			SECAM BR (V14)						25	00-3F	25						
213			SECAM BB (V15)						16	00-3F	16						
214			SUB VOLUME (V16)						3C	00-3C	3C						
215			V-SIZE-60Hz (V17)						1F	00-3E	23						
216					V-SHIFT-60Hz (V18)				06	00-0E	05						
217				H-SHIFT-60Hz (V19)					11	00-1E	11						
218		S-TRAP-BG (V20)							40	00-7F	40						
219		S-TRAP-I (V21)							40	00-7F	40						
21A		S-TRAP-DK (V22)							40	00-7F	40						
21B		S-TRAP-M (V23)							40	00-7F	40						
21C		S-TRAP-574 (V24)							40	00-7F	40						
21D																	
21E																	
21F																	
220																	
221																	
222		SUB CONTRAST YUV (V26)							64	00-7F	64						
223	SUB BRIGHTNESS YUV (V27)								7F	00-FF	7F						
224			VS-CORRECT (V28)						20	00-3F	2C						
225				VS-CORRECT OFFSET (V29)					0D	00-1A	04						
226			V-LINEARITY (V30)						20	00-3F	24						
227				V-LINEARITY OFFSET (V31)					0D	00-1A	10						
228			SUB SHARPNESS OV (V32)						2B	00-3F	26						
229																	
22A																	
22B																	
22C		S-OUT-LEVEL (F06)							5F	00-7F	5F						
22D						VIF-G (F07)			04	00-07	07						
22E						YDL (F13)			05	00-07	05						
22F						YDL-PAL (F14)			05	00-07	05						
230						YDL-SECAM (F15)			07	00-07	07						
231						YDL-N443 (F16)			05	00-07	05						
232						YDL-N358 (F17)			05	00-07	05						
233						YDL-AV (F18)			06	00-07	06						
234						YDL-AV-PAL (F19)			06	00-07	06						
235						YDL-AV-SECAM (F20)			07	00-07	07						
236						YDL-AV-N443 (F21)			06	00-07	06						
237						YDL-AV-N358 (F22)			06	00-07	05						
238						YDL-YUV (F23)			06	00-07	06						
239			COLOUR-AV (F24)						29	00-3E	23						
23A			COLOUR-PAL (F25)						1F	00-3E	2B						
23B			COLOUR-SECAM (F26)						28	00-3E	28						
23C			COLOUR-N443 (F27)						17	00-3E	17						
23D			COLOUR-N358 (F28)						18	00-3E	27						
23E			COLUR-ADJ (F29)						1F	00-3E	2D						
23F			SHARPNESS-PRE-AV (F30)						24	00-3E	20						
MODEL									MODEL								
LETTER NO.									LETTER NO.								

MEMORY MAP (Continued)

MODEL : GA-7_IXC129WJN1	SEM PCD SOFTWARE GROUP	TV DESIGN ENGINEERING	TV PRODUCTION ENGINEERING
	ISSUED DATE :1 MARCH 2007	ISSUED DATE :	ISSUED DATE : 28.JUNE.2007
EEPROM CHECK DATA LIST 10	MANAGER	MANAGER	MANAGER MATSUNAGA
	CHIEF	CHIEF	CHIEF ISMAIL
	ENGINEER Tan	ENGINEER	ENGINEER CHIN

SLAVE ADDRESS : A0(00-FF) A2(100-1FF) A4(200-2FF) A6(300-3FF) A8(400-4FF) AA(500-5FF) AC(600-6FF) AE(700-7FF)

ADDRESS	DATA								MICON	EEPROM	EEPROM	CHASSIS		CTV FINAL		LAST INITIAL	REMARK
(HEX)	D7	D6	D5	D4	D3	D2	D1	D0	DEFAULT	RANGE	WRITE(CPU)	CHECK DATA	CHECK TYPE	CHECK DATA	CHECK TYPE	SETTING DATA	
240			SHARPNESS-PRE-YUV (F31)						1A	00-3E	1A						
241			SHARPNESS-PRE-PAL (F32)						15	00-3E	26						
242			SHARPNESS-PRE-SECAM (F33)						10	00-3E	21						
243			SHARPNESS-PRE-N443 (F34)						15	00-3E	26						
244			SHARPNESS-PRE-N358 (F35)						15	00-3E	26						
245		TINT-AV (F42)							3F	00-7E	40						
246		TINT-ADJ (F43)							3F	00-7E	41						
247		TINT-YUV-ADJ (F44)							3F	00-7E	3F						
248		R-R DRIVE (F45)							47	00-7E	3F						
249		B-R DRIVE (F46)							35	00-7E	36						
24A		R-B DRIVE (F47)							3C	00-7E	39						
24B		B-B DRIVE (F48)							4C	00-7E	47						
24C							TRAP (F49)		02	00-03	02						
24D							TRAP-PAL (F50)		02	00-03	02						
24E							TRAP-SECAM (F51)		02	00-03	02						
24F							TRAP-N443 (F52)		02	00-03	02						
250							TRAP-N358 (F53)		02	00-03	02						
251							GAMMA (F58)		00	00-03	01						
252					BS-D/C (F59)				0A	00-0F	0A						
253						SL-TV (F62)			02	00-07	02						
254						SL-AV (F63)			04	00-07	02						
255						SL-YUV (F64)			04	00-07	04						
256							AS/FBP-TV (F65)		02	00-03	03						
257							AS/FBP-AV (F66)		02	00-03	03						
258							AS/FBP-YUV (F67)		02	00-03	03						
259							VDL (F68)		00	00-03	00						
25A							UDL (F69)		00	00-03	00						
25B							AUTO-SCM-KIL-TV (F70)		01	00-03	01						
25C							SECAM-BGP (F71)		00	00-03	00						
25D																	
25E																	
25F		OSD-POS (F75)							09	00-7F	09						
260			SHARPNESS-OVER-AV (F36)						24	00-3E	20						
261			SHARPNESS-OVER-YUV (F37)						24	00-3E	24						
262			SHARPNESS-OVER-PAL (F38)						1F	00-3E	26						
263			SHARPNESS-OVER-SECAM (F39)						1A	00-3E	21						
264			SHARPNESS-OVER-N443 (F40)						1F	00-3E	26						
265			SHARPNESS-OVER-N358 (F41)						1F	00-3E	26						
266							AFC2 GAIN (F57)		00	00-03	00						
267																	
268																	
269																	
26A																	
26B																	
26C																	
26D							AUTO-SCM-KIL-AV-YUV (F78)		01	00-03	01						
26E							AFC1-GAIN-TV (F79)		00	00-03	00						
26F							AFC1-GAIN-AV (F80)		03	00-03	03						
270							AFC1-GAIN-YUV (F81)		03	00-03	03						
271						OSD LEVEL (F82)			03	00-04	04						
272	AC-FAIL-WO-BRIGHT (F87)								FF	00-FF	FF						
273							FORCED-SCM-KIL-TV (F88)		02	00-03	02						
274							FORCED-SCM-KIL-AV-YUV (F89)		02	00-03	02						
275	VIDEO-DEMUTE-DELAY (F91)								00	00-FF	19						
276	SOUND-DEMUTE-DELAY (F92)								00	00-FF	28						
277	MER (F93)								46	00-FF	46						
278	MEL1 (F94)								96	00-FF	96						
279	MEL2 (F95)								9C	00-FF	9C						
27A	MEL3 (F96)								A3	00-FF	A3						
27B	MEL4 (F97)								A5	00-FF	A5						
27C	MEL5 (F98)								AA	00-FF	AA						
27D	MEL6 (F99)								B4	01-FF	B4						
27E			S-Start Point (F100)						15	00-3C	15						
27F			S-Stop Point (F101)						3C	00-3C	3C						
MODEL									MODEL								
LETTER NO.									LETTER NO.								

MEMORY MAP (Continued)

MODEL : GA-7_IXC129WJN1	SEM PCD SOFTWARE GROUP	TV DESIGN ENGINEERING	TV PRODUCTION ENGINEERING
	ISSUED DATE :1 MARCH 2007	ISSUED DATE :	ISSUED DATE : 28.JUNE.2007
EEPROM CHECK DATA LIST 11	MANAGER	MANAGER	MANAGER MATSUNAGA
	CHIEF	CHIEF	CHIEF ISMAIL
	ENGINEER Tan	ENGINEER	ENGINEER CHIN

SLAVE ADDRESS : A0(00-FF) A2(100-1FF) A4(200-2FF) A6(300-3FF) A8(400-4FF) AA(500-5FF) AC(600-6FF) AE(700-7FF)

ADDRESS	DATA								MICON	EEPROM	EEPROM	CHASSIS		CTV FINAL		LAST INITIAL	
(HEX)	D7	D6	D5	D4	D3	D2	D1	D0	DEFAULT	RANGE	WRITE(CPU)	CHECK DATA	CHECK TYPE	CHECK DATA	CHECK TYPE	SETTING DATA	REMARK
280			S-Step (F102)						07	00-3C	07						
281			S-B-BASS (F104)						0A	00-3C	0A						
282			S-B-TREB (F105)						0A	00-3C	0A						
283			S-BASS (F106)						0A	00-3C	0A						
284			S-TREB (F107)						0A	00-3C	0A						
285		R-R-C DRIVE (F168)							43	00-7E	43						
286		B-R-C DRIVE (F169)							3A	00-7E	3A						
287		R-B-C DRIVE (F170)							3E	00-7E	3E						
288		B-B-C DRIVE (F171)							45	00-7E	45						
289					TRE OFFSET SUR ONII (F172)				08	00-0F	08						
28A		R-DRI YUV OFFSET (F117)							3F	00-7E	3F						
28B		B-DRI YUV OFFSET (F118)							3F	00-7E	3F						
28C		R-CUT OFF YUV OFFSET (F119)							3F	00-7E	3F						
28D		G-CUT OFF YUV OFFSET (F120)							3F	00-7E	3F						
28E		B-CUT OFF YUV OFFSET (F121)							3F	00-7E	3F						
28F		CONTRAST YUV OFFSET (F122)							3F	00-7E	3F						
290		BRIGHT YUV OFFSET (F123)							3F	00-7E	3F						
291			SHP ANT ON II OFFSET (F124)						1F	00-3E	1F						
292							WAIT MODE TIME (F125)		02	00-02	02						
293		CONTRAST OFFSET (F126)							3F	00-7E	3F						
294		BRIGHT OFFSET (F127)							3F	00-7E	3F						
295					CR-PEDESTEL ADJ (F128)				08	00-0F	08						
296					CB-PEDESTEL ADJ (F129)				08	00-0F	08						
297				AV-BRIGHTNESS OFFSET (F131)					16	00-1E	16						
298					BASS OFFSET (F132)				04	00-08	04						
299					TREBLE OFFSET (F133)				04	00-08	04						
29A		OSD POS V50 (F73)							24	01-37	24						
29B		OSD POS V60 (F74)							1F	01-32	1F						
29C							SIF BPF WIDE (F136)		00	00-03	03						
29D							SIF-BPF-WIDE-574 (F137)		00	00-03	00						
29E					TEST PATTERN (F139)				00	00-0F	00						
29F																	
2A0	HALF-H-KILLER	MCUVOUT (F141)	FSC FREE (F140)	ABCL-G (F05)	ABCL (F04)	BS OFF (F03)	RGB CLIP (F02)	C.CLIP-LVL (F01)	A0	00-FF	A1						
2A1				SHP-G-N3 (F12)	SHP-G-N4 (F11)	SHP-G-SCM (F10)	SHP-G-PAL (F09)	SHP-G (F08)	10	00-1F	10						
2A2	PLL-CP (F76)	N45 (F72)	OM DET (F61)	BS GAIN (F60)		V-FREE (F56)	1W-AV (F55)	1W-TV (F54)	82	00-FF	06						
2A3		V-AGC (F143)	Pow-Storage (F103)	CTI Adj. (F90)	C-ANGLE (F86)	TAKE-OFF-YUV (F85)	TAKE-OFF-AV (F84)	TAKE-OFF-TV (F83)	39	00-7F	31						
2A4		AS-SPEED-UP (F135)	AS-SPEED-DN (F134)	SIF-PAL (F130)	AVL LEVEL (F77)	V-STD YUV (F110)	V-STD-AV (F109)	V-STD-TV (F108)	00	00-7F	00						
2A5	VFREE2 (F173)	ACC-AMP-ON (F138)	APER-FREQ (F116)	PEAK ACL (F115)	HVCO PULLIN UP	HVCO PULLUP	HVCO PULL DOWN (F112)	HVCO FREERUN	00	00-7F	00						
2A6	AV2 (O11)	AV (O10)	Forced-Col (O08)	N358-TV (O07)	N443-TV (O06)	SECAM (O05)	HSYNC-JUDGE (O04)	HOTEL (O01)	DE	00-FF	50						
2A7	LED-CONT (O21)	R/C MENU (O20)	BIL (O17)	SWAP (O16)	CH-SCAN (O15)	MEGA-BASS (O14)	S-CTRL (O13)	YUV (O12)	03	00-FF	20						
2A8	CHILD LOCK (O30)	LNA TUNER (O29)	250 CHANNEL	ANT-BOOSTER	WHITE BACK (O25)	TUNER BAND (O24)	Sharp-logo (O23)	S-Booster (O22)	88	00-FF	80						
2A9					M (O09)	D/K (O09)	I (O09)	B/G (O09)	0F	01-0F	05						
2AA						Thai (O18)	Hindi (O18)	English (O18)	07	01-07	05						
2AB						SEARCH SPEED (O19)			03	01-05	01						
2AC	HOTEL CHANNEL POSITION (O02)								FF	00-F9, FF	FF						
2AD	HOTEL VOLUME (O03)								FF	00-3C, FF	FF						
2AE							AVL (O28)		02	00-02	00						
2AF																	
2B0		LK MENU (O37)	WHITE-TEMP (O36)	VIRGIN-MODE (O35)	NORMAL KEY (O31)	MP-IN (O34)	S-CTRL LIMIT (O33)	AV MODE (O32)	05	00-7F	00						
2B1			CONT NEWS (F144)						1E	00-3C	32						
2B2			CONT MUSIC (F145)						32	00-3C	3C						
2B3			CONT MOVIE (F146)						3C	00-3C	3C						
2B4			BRIGHT NEWS(F147)						1E	00-3C	1E						
2B5			BRIGHT MUSIC (F148)						1E	00-3C	1E						
2B6			BRIGHT MOVIE (F149)						1E	00-3C	1E						
2B7			COL NEWS (F150)						1E	00-3C	19						
2B8			COL MUSIC (F151)						1E	00-3C	1E						
2B9			COL MOVIE (F152)						28	00-3C	24						
2BA			SHARP NEWS (F153)						14	00-3C	18						
2BB			SHARP MUSIC (F154)						1E	00-3C	1E						
2BC			SHARP MOVIE (F155)						23	00-3C	24						
2BD							SURR NEWS (F156)		00	00-02	00						
2BE							SURR MUSIC (F157)		00	00-02	00						
2BF							SURR MOVIE (F158)		00	00-02	00						
MODEL									MODEL								
MTV NO.																	
LETTER NO.									LETTER NO.								

MEMORY MAP (Continued)

MODEL : GA-7_IXC129WJN1	SEM PCD SOFTWARE GROUP	TV DESIGN ENGINEERING	TV PRODUCTION ENGINEERING
	ISSUED DATE :1 MARCH 2007	ISSUED DATE :	ISSUED DATE : 28.JUNE.2007
EEPROM CHECK DATA LIST 12	MANAGER	MANAGER	MANAGER MATSUNAGA
	CHIEF	CHIEF	CHIEF ISMAIL
	ENGINEER Tan	ENGINEER	ENGINEER CHIN

SLAVE ADDRESS : A0(00-FF) A2(100-1FF) A4(200-2FF) A6(300-3FF) A8(400-4FF) AA(500-5FF) AC(600-6FF) AE(700-7FF)

ADDRESS	DATA								MICON	EEPROM	EEPROM	CHASSIS		CTV FINAL		LAST INITIAL	REMARK
(HEX)	D7	D6	D5	D4	D3	D2	D1	D0	DEFAULT	RANGE	WRITE(CPU)	CHECK DATA	CHECK TYPE	CHECK DATA	CHECK TYPE	SETTING DATA	
2C0				TREBLE NEWS (F159)					00	00-14	00						
2C1				TREBLE MUSIC (F160)					0A	00-14	0A						
2C2				TREBLE MOVIE (F161)					0F	00-14	0F						
2C3				BASS NEWS (F162)					05	00-14	05						
2C4				BASS MUSIC (F163)					0A	00-14	0A						
2C5				BASS MOVIE (F164)					14	00-14	14						
2C6						SUBCOST NEWS (F165)	SUBCOST MUSIC (F166)	SUBCOST MOVIE (F167)	03	00-07	03						
2C7						VD3/VD2/VD1-TV (F174)			01	00-07	01						
2C8						VD3/VD2/VD1-AV (F175)			03	00-07	03						
2C9						VD3/VD2/VD1-YUV (F176)			03	00-07	03						
2CA						SL-TV (WEAK) (F177)			07	00-07	07						
2CB		VIF-AGC THRESHOLD (F178)							7F	00-7F	7F						
2CC							AFT OFFSET (F179)		00	00-04	01						
2CD			VOL-start (F180)						3C	00-3C	3C						
2CE			VOL-step (F181)						00	00-3C	00						
2CF						BASS-LIMIT1 (F182)			07	00-07	07						
2D0						BASS-LIMIT2 (F183)			07	00-07	07						
2D1						BASS-LIMIT3 (F184)			07	00-07	07						
2D2						BASS-LIMIT4 (F185)			07	00-07	07						
2D3																	
2D4																	
2D5																	
2D6																	
2D7																	
2D8																	
2D9																	
2DA																	
2DB																	
2DC																	
2DD																	
2DE																	
2DF																	
2E0																	
2E1																	
2E2																	
2E3																	
2E4																	
2E5																	
2E6																	
2E7																	
2E8																	
2E9																	
2EA																	
2EB																	
2EC																	
2ED																	
2EE																	
2EF																	
2F0																	
2F1																	
2F2																	
2F3																	
2F4																	
2F5																	
2F6																	
2F7																	
2F8																	
2F9																	
2FA																	
2FB																	
2FC																	
2FD																	
2FE																	
2FF																	
MODEL									MODEL								
LETTER NO.									LETTER NO.								

MEMORY MAP (Continued)

MODEL : GA-7_IXC129WJN1	SEM PCD SOFTWARE GROUP	TV DESIGN ENGINEERING	TV PRODUCTION ENGINEERING
	ISSUED DATE :1 MARCH 2007	ISSUED DATE :	ISSUED DATE : 28.JUNE.2007
EEPROM CHECK DATA LIST 13	MANAGER	MANAGER	MANAGER MATSUNAGA
	CHIEF	CHIEF	CHIEF ISMAIL
	ENGINEER Tan	ENGINEER	ENGINEER CHIN

SLAVE ADDRESS : A0(00-FF) A2(100-1FF) A4(200-2FF) A6(300-3FF) A8(400-4FF) AA(500-5FF) AC(600-6FF) AE(700-7FF)

ADDRESS	DATA								MICON	EEPROM	EEPROM	CHASSIS		CTV FINAL		LAST INITIAL	
(HEX)	D7	D6	D5	D4	D3	D2	D1	D0	DEFAULT	RANGE	WRITE(CPU)	CHECK DATA	CHECK TYPE	CHECK DATA	CHECK TYPE	SETTING DATA	REMARK
300																	
301																	
302																	
303																	
304																	
305																	
306																	
307																	
308																	
309																	
30A																	
30B																	
30C																	
30D																	
30E																	
30F																	
310																	
311																	
312																	
313																	
314																	
315																	
316																	
317																	
318																	
319																	
31A																	
31B																	
31C																	
31D																	
31E																	
31F																	
320																	
321																	
322																	
323																	
324																	
325																	
326																	
327																	
328																	
329																	
32A																	
32B																	
32C																	
32D																	
32E																	
32F																	
330																	
331																	
332																	
333																	
334																	
335																	
336																	
337																	
338																	
339																	
33A																	
33B																	
33C																	
33D																	
33E																	
33F																	
MODEL									MODEL								
LETTER NO.									LETTER NO.								

MEMORY MAP (Continued)

MODEL : GA-7_IXC129WJN1	SEM PCD SOFTWARE GROUP	TV DESIGN ENGINEERING	TV PRODUCTION ENGINEERING
	ISSUED DATE :1 MARCH 2007	ISSUED DATE :	ISSUED DATE : 28.JUNE.2007
EEPROM CHECK DATA LIST 14	MANAGER	MANAGER	MANAGER MATSUNAGA
	CHIEF	CHIEF	CHIEF ISMAIL
	ENGINEER Tan	ENGINEER	ENGINEER CHIN

SLAVE ADDRESS : A0(00-FF) A2(100-1FF) A4(200-2FF) A6(300-3FF) A8(400-4FF) AA(500-5FF) AC(600-6FF) AE(700-7FF)

ADDRESS	DATA								MICON	EEPROM	EEPROM	CHASSIS		CTV FINAL		LAST INITIAL	REMARK
(HEX)	D7	D6	D5	D4	D3	D2	D1	D0	DEFAULT	RANGE	WRITE(CPU)	CHECK DATA	CHECK TYPE	CHECK DATA	CHECK TYPE	SETTING DATA	
340			USER CONTRAST (MOVIE)						3C	00-3C	3C						Used for Picture and Sound user setting storage when service option AV MODE (O32) = 0
341			USER COLOUR (MOVIE)						28	00-3C	28						
342			USER BRIGHTNESS (MOVIE)						1E	00-3C	1E						
343			USER TINT (MOVIE)						1E	00-3C	1E						
344			USER SHARPNESS (MOVIE)						23	00-3C	23						
345						USER WHITE TEMP (MOVIE)			02	00-04	02						
346							USER SURROUND (MOVIE)		00	00-02	00						
347				USER TREBLE (MOVIE)					0F	00-14	0F						
348				USER BASS (MOVIE)					14	00-14	14						
349			USER BALANCE						1E	00-3C	1E						
34A			USER CONTRAST (MUSIC)						32	00-3C	32						
34B			USER COLOUR (MUSIC)						1E	00-3C	1E						
34C			USER BRIGHTNESS (MUSIC)						1E	00-3C	1E						
34D			USER TINT (MUSIC)						1E	00-3C	1E						
34E			USER SHARPNESS (MUSIC)						1E	00-3C	1E						
34F						USER WHITE TEMP (MUSIC)			02	00-04	02						
350							USER SURROUND (MUSIC)		00	00-02	00						
351				USER TREBLE (MUSIC)					0A	00-14	0A						
352				USER BASS (MUSIC)					0A	00-14	0A						
353																	
354			USER CONTRAST (NEWS)						1E	00-3C	1E						
355			USER COLOUR (NEWS)						1E	00-3C	1E						
356			USER BRIGHTNESS (NEWS)						1E	00-3C	1E						
357			USER TINT (NEWS)						1E	00-3C	1E						
358			USER SHARPNESS (NEWS)						14	00-3C	14						
359						USER WHITE TEMP (NEWS)			02	00-04	02						
35A							USER SURROUND (NEWS)		00	00-02	00						
35B				USER TREBLE (NEWS)					00	00-14	00						
35C				USER BASS (NEWS)					05	00-14	05						
35D						USER S-BOOSTER (NEWS)	USER S-BOOSTER (MUSIC)	USER S-BOOSTER (MOVIE)	01	00-07	01						
35E							USER MEGA-BASS	USER AVL	03	00-03	03						
35F																	
360																	
361																	
362																	
363																	
364																	
365																	
366																	
367																	
368																	
369																	
36A																	
36B																	
36C																	
36D																	
36E																	
36F																	
370																	
371																	
372																	
373																	
374																	
375																	
376																	
377																	
378																	
379																	
37A																	
37B																	
37C																	
37D																	
37E																	
37F																	
MODEL									MODEL								
LETTER NO.									LETTER NO.								

MEMORY MAP (Continued)

MODEL : GA-7_IXC129WJN1	SEM PCD SOFTWARE GROUP	TV DESIGN ENGINEERING	TV PRODUCTION ENGINEERING
	ISSUED DATE :1 MARCH 2007	ISSUED DATE :	ISSUED DATE : 28.JUNE.2007
EEPROM CHECK DATA LIST 15	MANAGER	MANAGER	MANAGER MATSUNAGA
	CHIEF	CHIEF	CHIEF ISMAIL
	ENGINEER Tan	ENGINEER	ENGINEER CHIN

SLAVE ADDRESS : A0(00-FF) A2(100-1FF) A4(200-2FF) A6(300-3FF) A8(400-4FF) AA(500-5FF) AC(600-6FF) AE(700-7FF)

ADDRESS	DATA								MICON	EEPROM	EEPROM	CHASSIS		CTV FINAL		LAST INITIAL	REMARK
(HEX)	D7	D6	D5	D4	D3	D2	D1	D0	DEFAULT	RANGE	WRITE(CPU)	CHECK DATA	CHECK TYPE	CHECK DATA	CHECK TYPE	SETTING DATA	
380																	
381																	
382																	
383																	
384																	
385																	
386																	
387																	
388																	
389																	
38A																	
38B																	
38C																	
38D																	
38E																	
38F																	
390																	
391																	
392																	
393																	
394																	
395																	
396																	
397																	
398																	
399																	
39A																	
39B																	
39C																	
39D																	
39E																	
39F																	
3A0																	
3A1																	
3A2																	
3A3																	
3A4																	
3A5																	
3A6																	
3A7																	
3A8																	
3A9																	
3AA																	
3AB																	
3AC																	
3AD																	
3AE																	
3AF																	
3B0																	
3B1																	
3B2																	
3B3																	
3B4																	
3B5																	
3B6																	
3B7																	
3B8																	
3B9																	
3BA																	
3BB																	
3BC																	
3BD																	
3BE																	
3BF																	
MODEL									MODEL								
LETTER NO.									LETTER NO.								

MEMORY MAP (Continued)

MODEL : GA-7_IXC129WJN1	SEM PCD SOFTWARE GROUP	TV DESIGN ENGINEERING	TV PRODUCTION ENGINEERING
	ISSUED DATE :1 MARCH 2007	ISSUED DATE :	ISSUED DATE : 28.JUNE.2007
EEPROM CHECK DATA LIST 16	MANAGER	MANAGER	MANAGER MATSUNAGA
	CHIEF	CHIEF	CHIEF ISMAIL
	ENGINEER Tan	ENGINEER	ENGINEER CHIN

SLAVE ADDRESS : A0(00-FF) A2(100-1FF) A4(200-2FF) A6(300-3FF) A8(400-4FF) AA(500-5FF) AC(600-6FF) AE(700-7FF)

ADDRESS	DATA								MICON	EEPROM	EEPROM	CHASSIS		CTV FINAL		LAST INITIAL	
(HEX)	D7	D6	D5	D4	D3	D2	D1	D0	DEFAULT	RANGE	WRITE(CPU)	CHECK DATA	CHECK TYPE	CHECK DATA	CHECK TYPE	SETTING DATA	REMARK
3C0																	
3C1																	
3C2																	
3C3																	
3C4																	
3C5																	
3C6																	
3C7																	
3C8																	
3C9																	
3CA																	
3CB																	
3CC																	
3CD																	
3CE																	
3CF																	
3D0																	
3D1																	
3D2																	
3D3																	
3D4																	
3D5																	
3D6																	
3D7																	
3D8																	
3D9																	
3DA																	
3DB																	
3DC																	
3DD																	
3DE																	
3DF																	
3E0																	
3E1																	
3E2																	
3E3																	
3E4																	
3E5																	
3E6																	
3E7																	
3E8																	
3E9																	
3EA																	
3EB																	
3EC																	
3ED																	
3EE																	
3EF																	
3F0																	
3F1																	
3F2																	
3F3																	
3F4																	
3F5																	
3F6																	
3F7																	
3F8																	
3F9																	
3FA																	
3FB																	
3FC																	
3FD																	
3FE																	
3FF																	
MODEL									MODEL								
LETTER NO.									LETTER NO.								

MEMORY MAP (Continued)

MODEL : GA-7_IXC129WJN1	SEM PCD SOFTWARE GROUP	TV DESIGN ENGINEERING	TV PRODUCTION ENGINEERING
	ISSUED DATE :1 MARCH 2007	ISSUED DATE :	ISSUED DATE : 28.JUNE.2007
EEPROM CHECK DATA LIST 17	MANAGER	MANAGER	MANAGER MATSUNAGA
	CHIEF	CHIEF	CHIEF ISMAIL
	ENGINEER Tan	ENGINEER	ENGINEER CHIN

SLAVE ADDRESS : A0(00-FF) A2(100-1FF) A4(200-2FF) A6(300-3FF) A8(400-4FF) AA(500-5FF) AC(600-6FF) AE(700-7FF)

ADDRESS	DATA								MICON	EEPROM	EEPROM	CHASSIS		CTV FINAL		LAST INITIAL	
(HEX)	D7	D6	D5	D4	D3	D2	D1	D0	DEFAULT	RANGE	WRITE(CPU)	CHECK DATA	CHECK TYPE	CHECK DATA	CHECK TYPE	SETTING DATA	REMARK
400	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 100
401	TUNING FREQUENCY (HIGH BYTE)									00-FF							
402	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 101
403	TUNING FREQUENCY (HIGH BYTE)									00-FF							
404	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 102
405	TUNING FREQUENCY (HIGH BYTE)									00-FF							
406	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 103
407	TUNING FREQUENCY (HIGH BYTE)									00-FF							
408	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 104
409	TUNING FREQUENCY (HIGH BYTE)									00-FF							
40A	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 105
40B	TUNING FREQUENCY (HIGH BYTE)									00-FF							
40C	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 106
40D	TUNING FREQUENCY (HIGH BYTE)									00-FF							
40E	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 107
40F	TUNING FREQUENCY (HIGH BYTE)									00-FF							
410	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 108
411	TUNING FREQUENCY (HIGH BYTE)									00-FF							
412	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 109
413	TUNING FREQUENCY (HIGH BYTE)									00-FF							
414	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 110
415	TUNING FREQUENCY (HIGH BYTE)									00-FF							
416	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 111
417	TUNING FREQUENCY (HIGH BYTE)									00-FF							
418	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 112
419	TUNING FREQUENCY (HIGH BYTE)									00-FF							
41A	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 113
41B	TUNING FREQUENCY (HIGH BYTE)									00-FF							
41C	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 114
41D	TUNING FREQUENCY (HIGH BYTE)									00-FF							
41E	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 115
41F	TUNING FREQUENCY (HIGH BYTE)									00-FF							
420	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 116
421	TUNING FREQUENCY (HIGH BYTE)									00-FF							
422	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 117
423	TUNING FREQUENCY (HIGH BYTE)									00-FF							
424	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 118
425	TUNING FREQUENCY (HIGH BYTE)									00-FF							
426	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 119
427	TUNING FREQUENCY (HIGH BYTE)									00-FF							
428	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 120
429	TUNING FREQUENCY (HIGH BYTE)									00-FF							
42A	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 121
42B	TUNING FREQUENCY (HIGH BYTE)									00-FF							
42C	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 122
42D	TUNING FREQUENCY (HIGH BYTE)									00-FF							
42E	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 123
42F	TUNING FREQUENCY (HIGH BYTE)									00-FF							
430	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 124
431	TUNING FREQUENCY (HIGH BYTE)									00-FF							
432	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 125
433	TUNING FREQUENCY (HIGH BYTE)									00-FF							
434	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 126
435	TUNING FREQUENCY (HIGH BYTE)									00-FF							
436	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 127
437	TUNING FREQUENCY (HIGH BYTE)									00-FF							
438	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 128
439	TUNING FREQUENCY (HIGH BYTE)									00-FF							
43A	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 129
43B	TUNING FREQUENCY (HIGH BYTE)									00-FF							
43C	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 130
43D	TUNING FREQUENCY (HIGH BYTE)									00-FF							
43E	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 131
43F	TUNING FREQUENCY (HIGH BYTE)									00-FF							
MODEL									MODEL								
LETTER NO.									LETTER NO.								

MEMORY MAP (Continued)

MODEL : GA-7_IXC129WJN1	SEM PCD SOFTWARE GROUP	TV DESIGN ENGINEERING	TV PRODUCTION ENGINEERING
	ISSUED DATE :1 MARCH 2007	ISSUED DATE :	ISSUED DATE : 28.JUNE.2007
EEPROM CHECK DATA LIST 18	MANAGER	MANAGER	MANAGER MATSUNAGA
	CHIEF	CHIEF	CHIEF ISMAIL
	ENGINEER Tan	ENGINEER	ENGINEER CHIN

SLAVE ADDRESS : A0(00-FF) A2(100-1FF) A4(200-2FF) A6(300-3FF) A8(400-4FF) AA(500-5FF) AC(600-6FF) AE(700-7FF)

ADDRESS	DATA								MICON	EEPROM	EEPROM	CHASSIS		CTV FINAL		LAST INITIAL	
(HEX)	D7	D6	D5	D4	D3	D2	D1	D0	DEFAULT	RANGE	WRITE(CPU)	CHECK DATA	CHECK TYPE	CHECK DATA	CHECK TYPE	SETTING DATA	REMARK
440	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 132
441	TUNING FREQUENCY (HIGH BYTE)									00-FF							
442	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 133
443	TUNING FREQUENCY (HIGH BYTE)									00-FF							
444	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 134
445	TUNING FREQUENCY (HIGH BYTE)									00-FF							
446	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 135
447	TUNING FREQUENCY (HIGH BYTE)									00-FF							
448	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 136
449	TUNING FREQUENCY (HIGH BYTE)									00-FF							
44A	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 137
44B	TUNING FREQUENCY (HIGH BYTE)									00-FF							
44C	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 138
44D	TUNING FREQUENCY (HIGH BYTE)									00-FF							
44E	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 139
44F	TUNING FREQUENCY (HIGH BYTE)									00-FF							
450	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 140
451	TUNING FREQUENCY (HIGH BYTE)									00-FF							
452	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 141
453	TUNING FREQUENCY (HIGH BYTE)									00-FF							
454	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 142
455	TUNING FREQUENCY (HIGH BYTE)									00-FF							
456	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 143
457	TUNING FREQUENCY (HIGH BYTE)									00-FF							
458	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 144
459	TUNING FREQUENCY (HIGH BYTE)									00-FF							
45A	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 145
45B	TUNING FREQUENCY (HIGH BYTE)									00-FF							
45C	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 146
45D	TUNING FREQUENCY (HIGH BYTE)									00-FF							
45E	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 147
45F	TUNING FREQUENCY (HIGH BYTE)									00-FF							
460	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 148
461	TUNING FREQUENCY (HIGH BYTE)									00-FF							
462	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 149
463	TUNING FREQUENCY (HIGH BYTE)									00-FF							
464	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 150
465	TUNING FREQUENCY (HIGH BYTE)									00-FF							
466	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 151
467	TUNING FREQUENCY (HIGH BYTE)									00-FF							
468	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 152
469	TUNING FREQUENCY (HIGH BYTE)									00-FF							
46A	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 153
46B	TUNING FREQUENCY (HIGH BYTE)									00-FF							
46C	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 154
46D	TUNING FREQUENCY (HIGH BYTE)									00-FF							
46E	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 155
46F	TUNING FREQUENCY (HIGH BYTE)									00-FF							
470	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 156
471	TUNING FREQUENCY (HIGH BYTE)									00-FF							
472	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 157
473	TUNING FREQUENCY (HIGH BYTE)									00-FF							
474	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 158
475	TUNING FREQUENCY (HIGH BYTE)									00-FF							
476	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 159
477	TUNING FREQUENCY (HIGH BYTE)									00-FF							
478	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 160
479	TUNING FREQUENCY (HIGH BYTE)									00-FF							
47A	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 161
47B	TUNING FREQUENCY (HIGH BYTE)									00-FF							
47C	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 162
47D	TUNING FREQUENCY (HIGH BYTE)									00-FF							
47E	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 163
47F	TUNING FREQUENCY (HIGH BYTE)									00-FF							

MODEL							MODEL						
LETTER NO.							LETTER NO.						

MEMORY MAP (Continued)

MODEL : GA-7_IXC129WJN1	SEM PCD SOFTWARE GROUP	TV DESIGN ENGINEERING	TV PRODUCTION ENGINEERING
	ISSUED DATE :1 MARCH 2007	ISSUED DATE :	ISSUED DATE : 28.JUNE.2007
EEPROM CHECK DATA LIST 19	MANAGER	MANAGER	MANAGER MATSUNAGA
	CHIEF	CHIEF	CHIEF ISMAIL
	ENGINEER Tan	ENGINEER	ENGINEER CHIN

SLAVE ADDRESS : A0(00-FF) A2(100-1FF) A4(200-2FF) A6(300-3FF) A8(400-4FF) AA(500-5FF) AC(600-6FF) AE(700-7FF)

ADDRESS	DATA								MICON	EEPROM	EEPROM	CHASSIS		CTV FINAL		LAST INITIAL	
(HEX)	D7	D6	D5	D4	D3	D2	D1	D0	DEFAULT	RANGE	WRITE(CPU)	CHECK DATA	CHECK TYPE	CHECK DATA	CHECK TYPE	SETTING DATA	REMARK
480	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 164
481	TUNING FREQUENCY (HIGH BYTE)									00-FF							
482	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 165
483	TUNING FREQUENCY (HIGH BYTE)									00-FF							
484	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 166
485	TUNING FREQUENCY (HIGH BYTE)									00-FF							
486	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 167
487	TUNING FREQUENCY (HIGH BYTE)									00-FF							
488	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 168
489	TUNING FREQUENCY (HIGH BYTE)									00-FF							
48A	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 169
48B	TUNING FREQUENCY (HIGH BYTE)									00-FF							
48C	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 170
48D	TUNING FREQUENCY (HIGH BYTE)									00-FF							
48E	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 171
48F	TUNING FREQUENCY (HIGH BYTE)									00-FF							
490	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 172
491	TUNING FREQUENCY (HIGH BYTE)									00-FF							
492	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 173
493	TUNING FREQUENCY (HIGH BYTE)									00-FF							
494	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 174
495	TUNING FREQUENCY (HIGH BYTE)									00-FF							
496	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 175
497	TUNING FREQUENCY (HIGH BYTE)									00-FF							
498	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 176
499	TUNING FREQUENCY (HIGH BYTE)									00-FF							
49A	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 177
49B	TUNING FREQUENCY (HIGH BYTE)									00-FF							
49C	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 178
49D	TUNING FREQUENCY (HIGH BYTE)									00-FF							
49E	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 179
49F	TUNING FREQUENCY (HIGH BYTE)									00-FF							
4A0	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 180
4A1	TUNING FREQUENCY (HIGH BYTE)									00-FF							
4A2	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 181
4A3	TUNING FREQUENCY (HIGH BYTE)									00-FF							
4A4	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 182
4A5	TUNING FREQUENCY (HIGH BYTE)									00-FF							
4A6	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 183
4A7	TUNING FREQUENCY (HIGH BYTE)									00-FF							
4A8	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 184
4A9	TUNING FREQUENCY (HIGH BYTE)									00-FF							
4AA	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 185
4AB	TUNING FREQUENCY (HIGH BYTE)									00-FF							
4AC	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 186
4AD	TUNING FREQUENCY (HIGH BYTE)									00-FF							
4AE	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 187
4AF	TUNING FREQUENCY (HIGH BYTE)									00-FF							
4B0	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 188
4B1	TUNING FREQUENCY (HIGH BYTE)									00-FF							
4B2	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 189
4B3	TUNING FREQUENCY (HIGH BYTE)									00-FF							
4B4	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 190
4B5	TUNING FREQUENCY (HIGH BYTE)									00-FF							
4B6	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 191
4B7	TUNING FREQUENCY (HIGH BYTE)									00-FF							
4B8	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 192
4B9	TUNING FREQUENCY (HIGH BYTE)									00-FF							
4BA	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 193
4BB	TUNING FREQUENCY (HIGH BYTE)									00-FF							
4BC	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 194
4BD	TUNING FREQUENCY (HIGH BYTE)									00-FF							
4BE	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 195
4BF	TUNING FREQUENCY (HIGH BYTE)									00-FF							
MODEL									MODEL								
LETTER NO.									LETTER NO.								

MEMORY MAP (Continued)

MODEL : GA-7_IXC129WJN1	SEM PCD SOFTWARE GROUP	TV DESIGN ENGINEERING	TV PRODUCTION ENGINEERING
	ISSUED DATE :1 MARCH 2007	ISSUED DATE :	ISSUED DATE : 28.JUNE.2007
EEPROM CHECK DATA LIST 20	MANAGER	MANAGER	MANAGER MATSUNAGA
	CHIEF	CHIEF	CHIEF ISMAIL
	ENGINEER Tan	ENGINEER	ENGINEER CHIN

SLAVE ADDRESS : A0(00-FF) A2(100-1FF) A4(200-2FF) A6(300-3FF) A8(400-4FF) AA(500-5FF) AC(600-6FF) AE(700-7FF)

ADDRESS	DATA								MICON	EEPROM	EEPROM	CHASSIS		CTV FINAL		LAST INITIAL	
(HEX)	D7	D6	D5	D4	D3	D2	D1	D0	DEFAULT	RANGE	WRITE(CPU)	CHECK DATA	CHECK TYPE	CHECK DATA	CHECK TYPE	SETTING DATA	REMARK
4C0	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 196
4C1	TUNING FREQUENCY (HIGH BYTE)									00-FF							
4C2	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 197
4C3	TUNING FREQUENCY (HIGH BYTE)									00-FF							
4C4	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 198
4C5	TUNING FREQUENCY (HIGH BYTE)									00-FF							
4C6	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 199
4C7	TUNING FREQUENCY (HIGH BYTE)									00-FF							
4C8	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 200
4C9	TUNING FREQUENCY (HIGH BYTE)									00-FF							
4CA	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 201
4CB	TUNING FREQUENCY (HIGH BYTE)									00-FF							
4CC	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 202
4CD	TUNING FREQUENCY (HIGH BYTE)									00-FF							
4CE	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 203
4CF	TUNING FREQUENCY (HIGH BYTE)									00-FF							
4D0	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 204
4D1	TUNING FREQUENCY (HIGH BYTE)									00-FF							
4D2	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 205
4D3	TUNING FREQUENCY (HIGH BYTE)									00-FF							
4D4	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 206
4D5	TUNING FREQUENCY (HIGH BYTE)									00-FF							
4D6	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 207
4D7	TUNING FREQUENCY (HIGH BYTE)									00-FF							
4D8	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 208
4D9	TUNING FREQUENCY (HIGH BYTE)									00-FF							
4DA	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 209
4DB	TUNING FREQUENCY (HIGH BYTE)									00-FF							
4DC	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 210
4DD	TUNING FREQUENCY (HIGH BYTE)									00-FF							
4DE	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 211
4DF	TUNING FREQUENCY (HIGH BYTE)									00-FF							
4E0	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 212
4E1	TUNING FREQUENCY (HIGH BYTE)									00-FF							
4E2	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 213
4E3	TUNING FREQUENCY (HIGH BYTE)									00-FF							
4E4	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 214
4E5	TUNING FREQUENCY (HIGH BYTE)									00-FF							
4E6	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 215
4E7	TUNING FREQUENCY (HIGH BYTE)									00-FF							
4E8	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 216
4E9	TUNING FREQUENCY (HIGH BYTE)									00-FF							
4EA	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 217
4EB	TUNING FREQUENCY (HIGH BYTE)									00-FF							
4EC	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 218
4ED	TUNING FREQUENCY (HIGH BYTE)									00-FF							
4EE	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 219
4EF	TUNING FREQUENCY (HIGH BYTE)									00-FF							
4F0	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 220
4F1	TUNING FREQUENCY (HIGH BYTE)									00-FF							
4F2	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 221
4F3	TUNING FREQUENCY (HIGH BYTE)									00-FF							
4F4	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 222
4F5	TUNING FREQUENCY (HIGH BYTE)									00-FF							
4F6	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 223
4F7	TUNING FREQUENCY (HIGH BYTE)									00-FF							
4F8	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 224
4F9	TUNING FREQUENCY (HIGH BYTE)									00-FF							
4FA	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 225
4FB	TUNING FREQUENCY (HIGH BYTE)									00-FF							
4FC	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 226
4FD	TUNING FREQUENCY (HIGH BYTE)									00-FF							
4FE	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 227
4FF	TUNING FREQUENCY (HIGH BYTE)									00-FF							

MODEL							MODEL						
LETTER NO.							LETTER NO.						

MEMORY MAP (Continued)

MODEL : GA-7_IXC129WJN1	SEM PCD SOFTWARE GROUP	TV DESIGN ENGINEERING	TV PRODUCTION ENGINEERING
	ISSUED DATE :1 MARCH 2007	ISSUED DATE :	ISSUED DATE : 28.JUNE.2007
EEPROM CHECK DATA LIST 21	MANAGER	MANAGER	MANAGER MATSUNAGA
	CHIEF	CHIEF	CHIEF ISMAIL
	ENGINEER Tan	ENGINEER	ENGINEER CHIN

SLAVE ADDRESS : A0(00-FF) A2(100-1FF) A4(200-2FF) A6(300-3FF) A8(400-4FF) AA(500-5FF) AC(600-6FF) AE(700-7FF)

ADDRESS	DATA								MICON	EEPROM	EEPROM	CHASSIS		CTV FINAL		LAST INITIAL	REMARK
(HEX)	D7	D6	D5	D4	D3	D2	D1	D0	DEFAULT	RANGE	WRITE(CPU)	CHECK DATA	CHECK TYPE	CHECK DATA	CHECK TYPE	SETTING DATA	
500	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 228
501	TUNING FREQUENCY (HIGH BYTE)									00-FF							
502	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 229
503	TUNING FREQUENCY (HIGH BYTE)									00-FF							
504	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 230
505	TUNING FREQUENCY (HIGH BYTE)									00-FF							
506	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 231
507	TUNING FREQUENCY (HIGH BYTE)									00-FF							
508	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 232
509	TUNING FREQUENCY (HIGH BYTE)									00-FF							
50A	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 233
50B	TUNING FREQUENCY (HIGH BYTE)									00-FF							
50C	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 234
50D	TUNING FREQUENCY (HIGH BYTE)									00-FF							
50E	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 235
50F	TUNING FREQUENCY (HIGH BYTE)									00-FF							
510	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 236
511	TUNING FREQUENCY (HIGH BYTE)									00-FF							
512	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 237
513	TUNING FREQUENCY (HIGH BYTE)									00-FF							
514	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 238
515	TUNING FREQUENCY (HIGH BYTE)									00-FF							
516	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 239
517	TUNING FREQUENCY (HIGH BYTE)									00-FF							
518	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 240
519	TUNING FREQUENCY (HIGH BYTE)									00-FF							
51A	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 241
51B	TUNING FREQUENCY (HIGH BYTE)									00-FF							
51C	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 242
51D	TUNING FREQUENCY (HIGH BYTE)									00-FF							
51E	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 243
51F	TUNING FREQUENCY (HIGH BYTE)									00-FF							
520	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 244
521	TUNING FREQUENCY (HIGH BYTE)									00-FF							
522	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 245
523	TUNING FREQUENCY (HIGH BYTE)									00-FF							
524	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 246
525	TUNING FREQUENCY (HIGH BYTE)									00-FF							
526	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 247
527	TUNING FREQUENCY (HIGH BYTE)									00-FF							
528	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 248
529	TUNING FREQUENCY (HIGH BYTE)									00-FF							
52A	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 249
52B	TUNING FREQUENCY (HIGH BYTE)									00-FF							
52C																	
52D																	
52E																	
52F																	
530																	
531																	
532																	
533																	
534																	
535																	
536																	
537																	
538																	
539																	
53A																	
53B																	
53C																	
53D																	
53E																	
53F																	
MODEL									MODEL								
LETTER NO.									LETTER NO.								

MEMORY MAP (Continued)

MODEL : GA-7_IXC129WJN1	SEM PCD SOFTWARE GROUP	TV DESIGN ENGINEERING	TV PRODUCTION ENGINEERING
	ISSUED DATE :1 MARCH 2007	ISSUED DATE :	ISSUED DATE : 28.JUNE.2007
EEPROM CHECK DATA LIST 22	MANAGER	MANAGER	MANAGER MATSUNAGA
	CHIEF	CHIEF	CHIEF ISMAIL
	ENGINEER Tan	ENGINEER	ENGINEER CHIN

SLAVE ADDRESS : A0(00-FF) A2(100-1FF) A4(200-2FF) A6(300-3FF) A8(400-4FF) AA(500-5FF) AC(600-6FF) AE(700-7FF)

ADDRESS	DATA								MICON	EEPROM	EEPROM	CHASSIS		CTV FINAL		LAST INITIAL	
(HEX)	D7	D6	D5	D4	D3	D2	D1	D0	DEFAULT	RANGE	WRITE(CPU)	CHECK DATA	CHECK TYPE	CHECK DATA	CHECK TYPE	SETTING DATA	REMARK
540	ANT-BOOSTER (POS100)		S-SYSTEM (POS100)			C-SYSTEM (POS100)			00	00-9C	00						
541	ANT-BOOSTER (POS101)		S-SYSTEM (POS101)			C-SYSTEM (POS101)			00	00-9C	00						S-SYSTEM
542	ANT-BOOSTER (POS102)		S-SYSTEM (POS102)			C-SYSTEM (POS102)			00	00-9C	00						0: B/G
543	ANT-BOOSTER (POS103)		S-SYSTEM (POS103)			C-SYSTEM (POS103)			00	00-9C	00						1: I
544	ANT-BOOSTER (POS104)		S-SYSTEM (POS104)			C-SYSTEM (POS104)			00	00-9C	00						2: D/K
545	ANT-BOOSTER (POS105)		S-SYSTEM (POS105)			C-SYSTEM (POS105)			00	00-9C	00						3: M
546	ANT-BOOSTER (POS106)		S-SYSTEM (POS106)			C-SYSTEM (POS106)			00	00-9C	00						
547	ANT-BOOSTER (POS107)		S-SYSTEM (POS107)			C-SYSTEM POS107)			00	00-9C	00						C-SYSTEM
548	ANT-BOOSTER (POS108)		S-SYSTEM (POS108)			C-SYSTEM (POS108)			00	00-9C	00						0: AUTO
549	ANT-BOOSTER (POS109)		S-SYSTEM (POS109)			C-SYSTEM (POS109)			00	00-9C	00						1: PAL
54A	ANT-BOOSTER (POS110)		S-SYSTEM (POS110)			C-SYSTEM (POS110)			00	00-9C	00						2:SECAM
54B	ANT-BOOSTER (POS111)		S-SYSTEM (POS111)			C-SYSTEM (POS111)			00	00-9C	00						3: N443
54C	ANT-BOOSTER (POS112)		S-SYSTEM (POS112)			C-SYSTEM (POS112)			00	00-9C	00						4:N358
54D	ANT-BOOSTER (POS113)		S-SYSTEM (POS113)			C-SYSTEM (POS113)			00	00-9C	00						
54E	ANT-BOOSTER (POS114)		S-SYSTEM (POS114)			C-SYSTEM (POS114)			00	00-9C	00						ANT-BOOSTER
54F	ANT-BOOSTER (POS115)		S-SYSTEM (POS115)			C-SYSTEM (POS115)			00	00-9C	00						0: OFF
550	ANT-BOOSTER (POS116)		S-SYSTEM (POS116)			C-SYSTEM (POS116)			00	00-9C	00						1: ON I
551	ANT-BOOSTER (POS117)		S-SYSTEM (POS117)			C-SYSTEM (POS117)			00	00-9C	00						2: ON II
552	ANT-BOOSTER (POS118)		S-SYSTEM (POS118)			C-SYSTEM (POS118)			00	00-9C	00						
553	ANT-BOOSTER (POS119)		S-SYSTEM (POS119)			C-SYSTEM (POS119)			00	00-9C	00						
554	ANT-BOOSTER (POS120)		S-SYSTEM (POS120)			C-SYSTEM (POS120)			00	00-9C	00						
555	ANT-BOOSTER (POS121)		S-SYSTEM (POS121)			C-SYSTEM (POS121)			00	00-9C	00						
556	ANT-BOOSTER (POS122)		S-SYSTEM (POS122)			C-SYSTEM (POS122)			00	00-9C	00						
557	ANT-BOOSTER (POS123)		S-SYSTEM (POS123)			C-SYSTEM (POS123)			00	00-9C	00						
558	ANT-BOOSTER (POS124)		S-SYSTEM (POS124)			C-SYSTEM (POS124)			00	00-9C	00						
559	ANT-BOOSTER (POS125)		S-SYSTEM (POS125)			C-SYSTEM (POS125)			00	00-9C	00						
55A	ANT-BOOSTER (POS126)		S-SYSTEM (POS126)			C-SYSTEM (POS126)			00	00-9C	00						
55B	ANT-BOOSTER (POS127)		S-SYSTEM (POS127)			C-SYSTEM (POS127)			00	00-9C	00						
55C	ANT-BOOSTER (POS128)		S-SYSTEM (POS128)			C-SYSTEM (POS128)			00	00-9C	00						
55D	ANT-BOOSTER (POS129)		S-SYSTEM (POS129)			C-SYSTEM (POS129)			00	00-9C	00						
55E	ANT-BOOSTER (POS130)		S-SYSTEM (POS130)			C-SYSTEM (POS130)			00	00-9C	00						
55F	ANT-BOOSTER (POS131)		S-SYSTEM (POS131)			C-SYSTEM (POS131)			00	00-9C	00						
560	ANT-BOOSTER (POS132)		S-SYSTEM (POS132)			C-SYSTEM (POS132)			00	00-9C	00						
561	ANT-BOOSTER (POS133)		S-SYSTEM (POS133)			C-SYSTEM (POS133)			00	00-9C	00						
562	ANT-BOOSTER (POS134)		S-SYSTEM (POS134)			C-SYSTEM (POS134)			00	00-9C	00						
563	ANT-BOOSTER (POS135)		S-SYSTEM (POS135)			C-SYSTEM (POS135)			00	00-9C	00						
564	ANT-BOOSTER (POS136)		S-SYSTEM (POS136)			C-SYSTEM (POS136)			00	00-9C	00						
565	ANT-BOOSTER (POS137)		S-SYSTEM (POS137)			C-SYSTEM (POS137)			00	00-9C	00						
566	ANT-BOOSTER (POS138)		S-SYSTEM (POS138)			C-SYSTEM (POS138)			00	00-9C	00						
567	ANT-BOOSTER (POS139)		S-SYSTEM (POS139)			C-SYSTEM (POS139)			00	00-9C	00						
568	ANT-BOOSTER (POS140)		S-SYSTEM (POS140)			C-SYSTEM (POS140)			00	00-9C	00						
569	ANT-BOOSTER (POS141)		S-SYSTEM (POS141)			C-SYSTEM (POS141)			00	00-9C	00						
56A	ANT-BOOSTER (POS142)		S-SYSTEM (POS142)			C-SYSTEM (POS142)			00	00-9C	00						
56B	ANT-BOOSTER (POS143)		S-SYSTEM (POS143)			C-SYSTEM (POS143)			00	00-9C	00						
56C	ANT-BOOSTER (POS144)		S-SYSTEM (POS144)			C-SYSTEM (POS144)			00	00-9C	00						
56D	ANT-BOOSTER (POS145)		S-SYSTEM (POS145)			C-SYSTEM (POS145)			00	00-9C	00						
56E	ANT-BOOSTER (POS146)		S-SYSTEM (POS146)			C-SYSTEM (POS146)			00	00-9C	00						
56F	ANT-BOOSTER (POS147)		S-SYSTEM (POS147)			C-SYSTEM (POS147)			00	00-9C	00						
570	ANT-BOOSTER (POS148)		S-SYSTEM (POS148)			C-SYSTEM (POS148)			00	00-9C	00						
571	ANT-BOOSTER (POS149)		S-SYSTEM (POS149)			C-SYSTEM (POS149)			00	00-9C	00						
572	ANT-BOOSTER (POS150)		S-SYSTEM (POS150)			C-SYSTEM (POS150)			00	00-9C	00						
573	ANT-BOOSTER (POS151)		S-SYSTEM (POS151)			C-SYSTEM (POS151)			00	00-9C	00						
574	ANT-BOOSTER (POS152)		S-SYSTEM (POS152)			C-SYSTEM (POS152)			00	00-9C	00						
575	ANT-BOOSTER (POS153)		S-SYSTEM (POS153)			C-SYSTEM (POS153)			00	00-9C	00						
576	ANT-BOOSTER (POS154)		S-SYSTEM (POS154)			C-SYSTEM (POS154)			00	00-9C	00						
577	ANT-BOOSTER (POS155)		S-SYSTEM (POS155)			C-SYSTEM (POS155)			00	00-9C	00						
578	ANT-BOOSTER (POS156)		S-SYSTEM (POS156)			C-SYSTEM (POS156)			00	00-9C	00						
579	ANT-BOOSTER (POS157)		S-SYSTEM (POS157)			C-SYSTEM (POS157)			00	00-9C	00						
57A	ANT-BOOSTER (POS158)		S-SYSTEM (POS158)			C-SYSTEM (POS158)			00	00-9C	00						
57B	ANT-BOOSTER (POS159)		S-SYSTEM (POS159)			C-SYSTEM (POS159)			00	00-9C	00						
57C	ANT-BOOSTER (POS160)		S-SYSTEM (POS160)			C-SYSTEM (POS160)			00	00-9C	00						
57D	ANT-BOOSTER (POS161)		S-SYSTEM (POS161)			C-SYSTEM (POS161)			00	00-9C	00						
57E	ANT-BOOSTER (POS162)		S-SYSTEM (POS162)			C-SYSTEM (POS162)			00	00-9C	00						
57F	ANT-BOOSTER (POS163)		S-SYSTEM (POS163)			C-SYSTEM (POS163)			00	00-9C	00						
MODEL									MODEL								
LETTER NO.									LETTER NO.								

MEMORY MAP (Continued)

MODEL : GA-7_IXC129WJN1	SEM PCD SOFTWARE GROUP	TV DESIGN ENGINEERING	TV PRODUCTION ENGINEERING
	ISSUED DATE :1 MARCH 2007	ISSUED DATE :	ISSUED DATE : 28.JUNE.2007
EEPROM CHECK DATA LIST 23	MANAGER	MANAGER	MANAGER MATSUNAGA
	CHIEF	CHIEF	CHIEF ISMAIL
	ENGINEER Tan	ENGINEER	ENGINEER CHIN

SLAVE ADDRESS : A0(00-FF) A2(100-1FF) A4(200-2FF) A6(300-3FF) A8(400-4FF) AA(500-5FF) AC(600-6FF) AE(700-7FF)

ADDRESS	DATA								MICON	EEPROM	EEPROM	CHASSIS		CTV FINAL		LAST INITIAL	
(HEX)	D7	D6	D5	D4	D3	D2	D1	D0	DEFAULT	RANGE	WRITE(CPU)	CHECK DATA	CHECK TYPE	CHECK DATA	CHECK TYPE	SETTING DATA	REMARK
580	ANT-BOOSTER (POS164)		S-SYSTEM (POS164)			C-SYSTEM (POS164)			00	00-9C	00						
581	ANT-BOOSTER (POS165)		S-SYSTEM (POS165)			C-SYSTEM (POS165)			00	00-9C	00						S-SYSTEM
582	ANT-BOOSTER (POS166)		S-SYSTEM (POS166)			C-SYSTEM (POS166)			00	00-9C	00						0: B/G
583	ANT-BOOSTER (POS167)		S-SYSTEM (POS167)			C-SYSTEM (POS167)			00	00-9C	00						1: I
584	ANT-BOOSTER (POS168)		S-SYSTEM (POS168)			C-SYSTEM (POS168)			00	00-9C	00						2: D/K
585	ANT-BOOSTER (POS169)		S-SYSTEM (POS169)			C-SYSTEM (POS169)			00	00-9C	00						3: M
586	ANT-BOOSTER (POS170)		S-SYSTEM (POS170)			C-SYSTEM (POS170)			00	00-9C	00						
587	ANT-BOOSTER (POS171)		S-SYSTEM (POS171)			C-SYSTEM POS171)			00	00-9C	00						C-SYSTEM
588	ANT-BOOSTER (POS172)		S-SYSTEM (POS172)			C-SYSTEM (POS172)			00	00-9C	00						0: AUTO
589	ANT-BOOSTER (POS173)		S-SYSTEM (POS173)			C-SYSTEM (POS173)			00	00-9C	00						1: PAL
58A	ANT-BOOSTER (POS174)		S-SYSTEM (POS174)			C-SYSTEM (POS174)			00	00-9C	00						2:SECAM
58B	ANT-BOOSTER (POS175)		S-SYSTEM (POS175)			C-SYSTEM (POS175)			00	00-9C	00						3: N443
58C	ANT-BOOSTER (POS176)		S-SYSTEM (POS176)			C-SYSTEM (POS176)			00	00-9C	00						4:N358
58D	ANT-BOOSTER (POS177)		S-SYSTEM (POS177)			C-SYSTEM (POS177)			00	00-9C	00						
58E	ANT-BOOSTER (POS178)		S-SYSTEM (POS178)			C-SYSTEM (POS178)			00	00-9C	00						ANT-BOOSTER
58F	ANT-BOOSTER (POS179)		S-SYSTEM (POS179)			C-SYSTEM (POS179)			00	00-9C	00						0: OFF
590	ANT-BOOSTER (POS180)		S-SYSTEM (POS180)			C-SYSTEM (POS180)			00	00-9C	00						1: ON I
591	ANT-BOOSTER (POS181)		S-SYSTEM (POS181)			C-SYSTEM (POS181)			00	00-9C	00						2: ON II
592	ANT-BOOSTER (POS182)		S-SYSTEM (POS182)			C-SYSTEM (POS182)			00	00-9C	00						
593	ANT-BOOSTER (POS183)		S-SYSTEM (POS183)			C-SYSTEM (POS183)			00	00-9C	00						
594	ANT-BOOSTER (POS184)		S-SYSTEM (POS184)			C-SYSTEM (POS184)			00	00-9C	00						
595	ANT-BOOSTER (POS185)		S-SYSTEM (POS185)			C-SYSTEM (POS185)			00	00-9C	00						
596	ANT-BOOSTER (POS186)		S-SYSTEM (POS186)			C-SYSTEM (POS186)			00	00-9C	00						
597	ANT-BOOSTER (POS187)		S-SYSTEM (POS187)			C-SYSTEM (POS187)			00	00-9C	00						
598	ANT-BOOSTER (POS188)		S-SYSTEM (POS188)			C-SYSTEM (POS188)			00	00-9C	00						
599	ANT-BOOSTER (POS189)		S-SYSTEM (POS189)			C-SYSTEM (POS189)			00	00-9C	00						
59A	ANT-BOOSTER (POS190)		S-SYSTEM (POS190)			C-SYSTEM (POS190)			00	00-9C	00						
59B	ANT-BOOSTER (POS191)		S-SYSTEM (POS191)			C-SYSTEM (POS191)			00	00-9C	00						
59C	ANT-BOOSTER (POS192)		S-SYSTEM (POS192)			C-SYSTEM (POS192)			00	00-9C	00						
59D	ANT-BOOSTER (POS193)		S-SYSTEM (POS193)			C-SYSTEM (POS193)			00	00-9C	00						
59E	ANT-BOOSTER (POS194)		S-SYSTEM (POS194)			C-SYSTEM (POS194)			00	00-9C	00						
59F	ANT-BOOSTER (POS195)		S-SYSTEM (POS195)			C-SYSTEM (POS195)			00	00-9C	00						
5A0	ANT-BOOSTER (POS196)		S-SYSTEM (POS196)			C-SYSTEM (POS196)			00	00-9C	00						
5A1	ANT-BOOSTER (POS197)		S-SYSTEM (POS197)			C-SYSTEM (POS197)			00	00-9C	00						
5A2	ANT-BOOSTER (POS198)		S-SYSTEM (POS198)			C-SYSTEM (POS198)			00	00-9C	00						
5A3	ANT-BOOSTER (POS199)		S-SYSTEM (POS199)			C-SYSTEM (POS199)			00	00-9C	00						
5A4	ANT-BOOSTER (POS200)		S-SYSTEM (POS200)			C-SYSTEM (POS200)			00	00-9C	00						
5A5	ANT-BOOSTER (POS201)		S-SYSTEM (POS201)			C-SYSTEM (POS201)			00	00-9C	00						
5A6	ANT-BOOSTER (POS202)		S-SYSTEM (POS202)			C-SYSTEM (POS202)			00	00-9C	00						
5A7	ANT-BOOSTER (POS203)		S-SYSTEM (POS203)			C-SYSTEM (POS203)			00	00-9C	00						
5A8	ANT-BOOSTER (POS204)		S-SYSTEM (POS204)			C-SYSTEM (POS204)			00	00-9C	00						
5A9	ANT-BOOSTER (POS205)		S-SYSTEM (POS205)			C-SYSTEM (POS205)			00	00-9C	00						
5AA	ANT-BOOSTER (POS206)		S-SYSTEM (POS206)			C-SYSTEM (POS206)			00	00-9C	00						
5AB	ANT-BOOSTER (POS207)		S-SYSTEM (POS207)			C-SYSTEM (POS207)			00	00-9C	00						
5AC	ANT-BOOSTER (POS208)		S-SYSTEM (POS208)			C-SYSTEM (POS208)			00	00-9C	00						
5AD	ANT-BOOSTER (POS209)		S-SYSTEM (POS209)			C-SYSTEM (POS209)			00	00-9C	00						
5AE	ANT-BOOSTER (POS210)		S-SYSTEM (POS210)			C-SYSTEM (POS210)			00	00-9C	00						
5AF	ANT-BOOSTER (POS211)		S-SYSTEM (POS211)			C-SYSTEM (POS211)			00	00-9C	00						
5B0	ANT-BOOSTER (POS212)		S-SYSTEM (POS212)			C-SYSTEM (POS212)			00	00-9C	00						
5B1	ANT-BOOSTER (POS213)		S-SYSTEM (POS213)			C-SYSTEM (POS213)			00	00-9C	00						
5B2	ANT-BOOSTER (POS214)		S-SYSTEM (POS214)			C-SYSTEM (POS214)			00	00-9C	00						
5B3	ANT-BOOSTER (POS215)		S-SYSTEM (POS215)			C-SYSTEM (POS215)			00	00-9C	00						
5B4	ANT-BOOSTER (POS216)		S-SYSTEM (POS216)			C-SYSTEM (POS216)			00	00-9C	00						
5B5	ANT-BOOSTER (POS217)		S-SYSTEM (POS217)			C-SYSTEM (POS217)			00	00-9C	00						
5B6	ANT-BOOSTER (POS218)		S-SYSTEM (POS218)			C-SYSTEM (POS218)			00	00-9C	00						
5B7	ANT-BOOSTER (POS219)		S-SYSTEM (POS219)			C-SYSTEM (POS219)			00	00-9C	00						
5B8	ANT-BOOSTER (POS220)		S-SYSTEM (POS220)			C-SYSTEM (POS220)			00	00-9C	00						
5B9	ANT-BOOSTER (POS221)		S-SYSTEM (POS221)			C-SYSTEM (POS221)			00	00-9C	00						
5BA	ANT-BOOSTER (POS222)		S-SYSTEM (POS222)			C-SYSTEM (POS222)			00	00-9C	00						
5BB	ANT-BOOSTER (POS223)		S-SYSTEM (POS223)			C-SYSTEM (POS223)			00	00-9C	00						
5BC	ANT-BOOSTER (POS224)		S-SYSTEM (POS224)			C-SYSTEM (POS224)			00	00-9C	00						
5BD	ANT-BOOSTER (POS225)		S-SYSTEM (POS225)			C-SYSTEM (POS225)			00	00-9C	00						
5BE	ANT-BOOSTER (POS226)		S-SYSTEM (POS226)			C-SYSTEM (POS226)			00	00-9C	00						
5BF	ANT-BOOSTER (POS227)		S-SYSTEM (POS227)			C-SYSTEM (POS227)			00	00-9C	00						
MODEL									MODEL								
LETTER NO.									LETTER NO.								

MEMORY MAP (Continued)

MODEL : GA-7_IXC129WJN1	SEM PCD SOFTWARE GROUP		TV DESIGN ENGINEERING		TV PRODUCTION ENGINEERING	
	ISSUED DATE : 1 MARCH 2007		ISSUED DATE :		ISSUED DATE : 28.JUNE.2007	
EEPROM CHECK DATA LIST 24	MANAGER		MANAGER		MANAGER	MATSUNAGA
	CHIEF		CHIEF		CHIEF	ISMAIL
	ENGINEER	Tan	ENGINEER		ENGINEER	CHIN

SLAVE ADDRESS : A0(00-FF) A2(100-1FF) A4(200-2FF) A6(300-3FF) A8(400-4FF) AA(500-5FF) AC(600-6FF) AE(700-7FF)

ADDRESS	DATA								MICON	EEPROM	EEPROM	CHASSIS		CTV FINAL		LAST INITIAL	REMARK
(HEX)	D7	D6	D5	D4	D3	D2	D1	D0	DEFAULT	RANGE	WRITE(CPU)	CHECK DATA	CHECK TYPE	CHECK DATA	CHECK TYPE	SETTING DATA	
5C0	ANT-BOOSTER (POS228)		S-SYSTEM (POS228)			C-SYSTEM (POS228)			00	00-9C	00						
5C1	ANT-BOOSTER (POS229)		S-SYSTEM (POS229)			C-SYSTEM (POS229)			00	00-9C	00						
5C2	ANT-BOOSTER (POS230)		S-SYSTEM (POS230)			C-SYSTEM (POS230)			00	00-9C	00						
5C3	ANT-BOOSTER (POS231)		S-SYSTEM (POS231)			C-SYSTEM (POS231)			00	00-9C	00						
5C4	ANT-BOOSTER (POS232)		S-SYSTEM (POS232)			C-SYSTEM (POS232)			00	00-9C	00						
5C5	ANT-BOOSTER (POS233)		S-SYSTEM (POS233)			C-SYSTEM (POS233)			00	00-9C	00						
5C6	ANT-BOOSTER (POS234)		S-SYSTEM (POS234)			C-SYSTEM (POS234)			00	00-9C	00						
5C7	ANT-BOOSTER (POS235)		S-SYSTEM (POS235)			C-SYSTEM POS235)			00	00-9C	00						
5C8	ANT-BOOSTER (POS236)		S-SYSTEM (POS236)			C-SYSTEM (POS236)			00	00-9C	00						
5C9	ANT-BOOSTER (POS237)		S-SYSTEM (POS237)			C-SYSTEM (POS237)			00	00-9C	00						
5CA	ANT-BOOSTER (POS238)		S-SYSTEM (POS238)			C-SYSTEM (POS238)			00	00-9C	00						
5CB	ANT-BOOSTER (POS239)		S-SYSTEM (POS239)			C-SYSTEM (POS239)			00	00-9C	00						
5CC	ANT-BOOSTER (POS240)		S-SYSTEM (POS240)			C-SYSTEM (POS240)			00	00-9C	00						
5CD	ANT-BOOSTER (POS241)		S-SYSTEM (POS241)			C-SYSTEM (POS241)			00	00-9C	00						
5CE	ANT-BOOSTER (POS242)		S-SYSTEM (POS242)			C-SYSTEM (POS242)			00	00-9C	00						
5CF	ANT-BOOSTER (POS243)		S-SYSTEM (POS243)			C-SYSTEM (POS243)			00	00-9C	00						
5D0	ANT-BOOSTER (POS244)		S-SYSTEM (POS244)			C-SYSTEM (POS244)			00	00-9C	00						
5D1	ANT-BOOSTER (POS245)		S-SYSTEM (POS245)			C-SYSTEM (POS245)			00	00-9C	00						
5D2	ANT-BOOSTER (POS246)		S-SYSTEM (POS246)			C-SYSTEM (POS246)			00	00-9C	00						
5D3	ANT-BOOSTER (POS247)		S-SYSTEM (POS247)			C-SYSTEM (POS247)			00	00-9C	00						
5D4	ANT-BOOSTER (POS248)		S-SYSTEM (POS248)			C-SYSTEM (POS248)			00	00-9C	00						
5D5	ANT-BOOSTER (POS249)		S-SYSTEM (POS249)			C-SYSTEM (POS249)			00	00-9C	00						
5D6																	
5D7																	
5D8	POS 111	POS 110	POS 109	POS 108	POS 107	POS 106	POS 105	POS 104	00	00-FF	00						
5D9	POS 119	POS 118	POS 117	POS 116	POS 115	POS 114	POS 113	POS 112	00	00-FF	00						
5DA	POS 127	POS 126	POS 125	POS 124	POS 123	POS 122	POS 121	POS 120	00	00-FF	00						
5DB	POS 135	POS 134	POS 133	POS 132	POS 131	POS 130	POS 129	POS 128	00	00-FF	00						
5DC	POS 143	POS 142	POS 141	POS 140	POS 139	POS 138	POS 137	POS 136	00	00-FF	00						
5DD	POS 151	POS 150	POS 149	POS 148	POS 147	POS 146	POS 145	POS 144	00	00-FF	00						
5DE	POS 159	POS 158	POS 157	POS 156	POS 155	POS 154	POS 153	POS 152	00	00-FF	00						
5DF	POS 167	POS 166	POS 165	POS 164	POS 163	POS 162	POS 161	POS 160	00	00-FF	00						
5E0	POS 175	POS 174	POS 173	POS 172	POS 171	POS 170	POS 169	POS 168	00	00-FF	00						
5E1	POS 183	POS 182	POS 181	POS 180	POS 179	POS 178	POS 177	POS 176	00	00-FF	00						1= SKIP ON, 0=SKIP OFF
5E2	POS 191	POS 190	POS 189	POS 188	POS 187	POS 186	POS 185	POS 184	00	00-FF	00						
5E3	POS 199	POS 198	POS 197	POS 196	POS 195	POS 194	POS 193	POS 192	00	00-FF	00						
5E4	POS 207	POS 206	POS 205	POS 204	POS 203	POS 202	POS 201	POS 200	00	00-FF	00						
5E5	POS 215	POS 214	POS 213	POS 212	POS 211	POS 210	POS 209	POS 208	00	00-FF	00						
5E6	POS 223	POS 222	POS 221	POS 220	POS 219	POS 218	POS 217	POS 216	00	00-FF	00						
5E7	POS 231	POS 230	POS 229	POS 228	POS 227	POS 226	POS 225	POS 224	00	00-FF	00						
5E8	POS 239	POS 238	POS 237	POS 236	POS 235	POS 234	POS 233	POS 232	00	00-FF	00						
5E9	POS 247	POS 246	POS 245	POS 244	POS 243	POS 242	POS 241	POS 240	00	00-FF	00						
5EA							POS 249	POS 248	00	00-FF	00						
5EB																	
5EC																	
5ED	POS 111	POS 110	POS 109	POS 108	POS 107	POS 106	POS 105	POS 104	FF	00-FF	FF						
5EE	POS 119	POS 118	POS 117	POS 116	POS 115	POS 114	POS 113	POS 112	FF	00-FF	FF						
5EF	POS 127	POS 126	POS 125	POS 124	POS 123	POS 122	POS 121	POS 120	FF	00-FF	FF						
5F0	POS 135	POS 134	POS 133	POS 132	POS 131	POS 130	POS 129	POS 128	FF	00-FF	FF						
5F1	POS 143	POS 142	POS 141	POS 140	POS 139	POS 138	POS 137	POS 136	FF	00-FF	FF						
5F2	POS 151	POS 150	POS 149	POS 148	POS 147	POS 146	POS 145	POS 144	FF	00-FF	FF						
5F3	POS 159	POS 158	POS 157	POS 156	POS 155	POS 154	POS 153	POS 152	FF	00-FF	FF						
5F4	POS 167	POS 166	POS 165	POS 164	POS 163	POS 162	POS 161	POS 160	FF	00-FF	FF						
5F5	POS 175	POS 174	POS 173	POS 172	POS 171	POS 170	POS 169	POS 168	FF	00-FF	FF						
5F6	POS 183	POS 182	POS 181	POS 180	POS 179	POS 178	POS 177	POS 176	FF	00-FF	FF						1= AFT ON, 0=AFT OFF
5F7	POS 191	POS 190	POS 189	POS 188	POS 187	POS 186	POS 185	POS 184	FF	00-FF	FF						
5F8	POS 199	POS 198	POS 197	POS 196	POS 195	POS 194	POS 193	POS 192	FF	00-FF	FF						
5F9	POS 207	POS 206	POS 205	POS 204	POS 203	POS 202	POS 201	POS 200	FF	00-FF	FF						
5FA	POS 215	POS 214	POS 213	POS 212	POS 211	POS 210	POS 209	POS 208	FF	00-FF	FF						
5FB	POS 223	POS 222	POS 221	POS 220	POS 219	POS 218	POS 217	POS 216	FF	00-FF	FF						
5FC	POS 231	POS 230	POS 229	POS 228	POS 227	POS 226	POS 225	POS 224	FF	00-FF	FF						
5FD	POS 239	POS 238	POS 237	POS 236	POS 235	POS 234	POS 233	POS 232	FF	00-FF	FF						
5FE	POS 247	POS 246	POS 245	POS 244	POS 243	POS 242	POS 241	POS 240	FF	00-FF	FF						
5FF							POS 249	POS 248	FF	00-FF	FF						
MODEL									MODEL								
LETTER NO.									LETTER NO.								

MEMORY MAP (Continued)

MODEL : GA-7_IXC129WJN1	SEM PCD SOFTWARE GROUP	TV DESIGN ENGINEERING	TV PRODUCTION ENGINEERING
	ISSUED DATE :1 MARCH 2007	ISSUED DATE :	ISSUED DATE : 28.JUNE.2007
EEPROM CHECK DATA LIST 25	MANAGER	MANAGER	MANAGER MATSUNAGA
	CHIEF	CHIEF	CHIEF ISMAIL
	ENGINEER Tan	ENGINEER	ENGINEER CHIN

SLAVE ADDRESS : A0(00-FF) A2(100-1FF) A4(200-2FF) A6(300-3FF) A8(400-4FF) AA(500-5FF) AC(600-6FF) AE(700-7FF)

ADDRESS	DATA								MICON	EEPROM	EEPROM	CHASSIS		CTV FINAL		LAST INITIAL	
(HEX)	D7	D6	D5	D4	D3	D2	D1	D0	DEFAULT	RANGE	WRITE(CPU)	CHECK DATA	CHECK TYPE	CHECK DATA	CHECK TYPE	SETTING DATA	REMARK
600																	
601																	
602																	
603																	
604																	
605																	
606																	
607																	
608																	
609																	
60A																	
60B																	
60C																	
60D																	
60E																	
60F																	
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616																	
617																	
618																	
619																	
61A																	
61B																	
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621																	
622																	
623																	
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626																	
627																	
628																	
629																	
62A																	
62B																	
62C																	
62D																	
62E																	
62F																	
630																	
631																	
632																	
633																	
634																	
635																	
636																	
637																	
638																	
639																	
63A																	
63B																	
63C																	
63D																	
63E																	
63F																	
MODEL									MODEL								
LETTER NO.									LETTER NO.								

MEMORY MAP (Continued)

MODEL : GA-7_IXC129WJN1	SEM PCD SOFTWARE GROUP	TV DESIGN ENGINEERING	TV PRODUCTION ENGINEERING
	ISSUED DATE :1 MARCH 2007	ISSUED DATE :	ISSUED DATE : 28.JUNE.2007
EEPROM CHECK DATA LIST 26	MANAGER	MANAGER	MANAGER MATSUNAGA
	CHIEF	CHIEF	CHIEF ISMAIL
	ENGINEER Tan	ENGINEER	ENGINEER CHIN

SLAVE ADDRESS : A0(00-FF) A2(100-1FF) A4(200-2FF) A6(300-3FF) A8(400-4FF) AA(500-5FF) AC(600-6FF) AE(700-7FF)

ADDRESS	DATA								MICON	EEPROM	EEPROM	CHASSIS		CTV FINAL		LAST INITIAL	REMARK
(HEX)	D7	D6	D5	D4	D3	D2	D1	D0	DEFAULT	RANGE	WRITE(CPU)	CHECK DATA	CHECK TYPE	CHECK DATA	CHECK TYPE	SETTING DATA	
640																	
641																	
642																	
643																	
644																	
645																	
646																	
647																	
648																	
649																	
64A																	
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676																	
677																	
678																	
679																	
67A																	
67B																	
67C																	
67D																	
67E																	
67F																	
MODEL									MODEL								
LETTER NO.									LETTER NO.								

MEMORY MAP (Continued)

MODEL : GA-7_IXC129WJN1	SEM PCD SOFTWARE GROUP		TV DESIGN ENGINEERING			TV PRODUCTION ENGINEERING		
	ISSUED DATE :1 MARCH 2007		ISSUED DATE :			ISSUED DATE : 28.JUNE.2007		
EEPROM CHECK DATA LIST 27	MANAGER		MANAGER			MANAGER	MATSUNAGA	
	CHIEF		CHIEF			CHIEF	ISMAIL	
	ENGINEER	Tan	ENGINEER			ENGINEER	CHIN	

SLAVE ADDRESS : A0(00-FF) A2(100-1FF) A4(200-2FF) A6(300-3FF) A8(400-4FF) AA(500-5FF) AC(600-6FF) AE(700-7FF)

ADDRESS	DATA								MICON	EEPROM	EEPROM	CHASSIS		CTV FINAL		LAST INITIAL	
(HEX)	D7	D6	D5	D4	D3	D2	D1	D0	DEFAULT	RANGE	WRITE(CPU)	CHECK DATA	CHECK TYPE	CHECK DATA	CHECK TYPE	SETTING DATA	REMARK
680																	
681																	
682																	
683																	
684																	
685																	
686																	
687																	
688																	
689																	
68A																	
68B																	
68C																	
68D																	
68E																	
68F																	
690																	
691																	
692																	
693																	
694																	
695																	
696																	
697																	
698																	
699																	
69A																	
69B																	
69C																	
69D																	
69E																	
69F																	
6A0																	
6A1																	
6A2																	
6A3																	
6A4																	
6A5																	
6A6																	
6A7																	
6A8																	
6A9																	
6AA																	
6AB																	
6AC																	
6AD																	
6AE																	
6AF																	
6B0																	
6B1																	
6B2																	
6B3																	
6B4																	
6B5																	
6B6																	
6B7																	
6B8																	
6B9																	
6BA																	
6BB																	
6BC																	
6BD																	
6BE																	
6BF																	
MODEL									MODEL								
LETTER NO.									LETTER NO.								

MEMORY MAP (Continued)

MODEL : GA-7_IXC129WJN1	SEM PCD SOFTWARE GROUP	TV DESIGN ENGINEERING	TV PRODUCTION ENGINEERING
	ISSUED DATE :1 MARCH 2007	ISSUED DATE :	ISSUED DATE : 28.JUNE.2007
EEPROM CHECK DATA LIST 28	MANAGER	MANAGER	MANAGER MATSUNAGA
	CHIEF	CHIEF	CHIEF ISMAIL
	ENGINEER Tan	ENGINEER	ENGINEER CHIN

SLAVE ADDRESS : A0(00-FF) A2(100-1FF) A4(200-2FF) A6(300-3FF) A8(400-4FF) AA(500-5FF) AC(600-6FF) AE(700-7FF)

ADDRESS	DATA								MICON	EEPROM	EEPROM	CHASSIS		CTV FINAL		LAST INITIAL	REMARK
(HEX)	D7	D6	D5	D4	D3	D2	D1	D0	DEFAULT	RANGE	WRITE(CPU)	CHECK DATA	CHECK TYPE	CHECK DATA	CHECK TYPE	SETTING DATA	
6C0																	
6C1																	
6C2																	
6C3																	
6C4																	
6C5																	
6C6																	
6C7																	
6C8																	
6C9																	
6CA																	
6CB																	
6CC																	
6CD																	
6CE																	
6CF																	
6D0																	
6D1																	
6D2																	
6D3																	
6D4																	
6D5																	
6D6																	
6D7																	
6D8																	
6D9																	
6DA																	
6DB																	
6DC																	
6DD																	
6DE																	
6DF																	
6E0																	
6E1																	
6E2																	
6E3																	
6E4																	
6E5																	
6E6																	
6E7																	
6E8																	
6E9																	
6EA																	
6EB																	
6EC																	
6ED																	
6EE																	
6EF																	
6F0																	
6F1																	
6F2																	
6F3																	
6F4																	
6F5																	
6F6																	
6F7																	
6F8																	
6F9																	
6FA																	
6FB																	
6FC																	
6FD																	
6FE																	
6FF																	
MODEL									MODEL								
LETTER NO.									LETTER NO.								

MEMORY MAP (Continued)

MODEL : GA-7_IXC129WJN1	SEM PCD SOFTWARE GROUP		TV DESIGN ENGINEERING			TV PRODUCTION ENGINEERING		
	ISSUED DATE :1 MARCH 2007		ISSUED DATE :			ISSUED DATE : 28.JUNE.2007		
EEPROM CHECK DATA LIST 29	MANAGER		MANAGER			MANAGER	MATSUNAGA	
	CHIEF		CHIEF			CHIEF	ISMAIL	
	ENGINEER	Tan	ENGINEER			ENGINEER	CHIN	

SLAVE ADDRESS : A0(00-FF) A2(100-1FF) A4(200-2FF) A6(300-3FF) A8(400-4FF) AA(500-5FF) AC(600-6FF) AE(700-7FF)

ADDRESS	DATA								MICON	EEPROM	EEPROM	CHASSIS		CTV FINAL		LAST INITIAL	
(HEX)	D7	D6	D5	D4	D3	D2	D1	D0	DEFAULT	RANGE	WRITE(CPU)	CHECK DATA	CHECK TYPE	CHECK DATA	CHECK TYPE	SETTING DATA	REMARK
700																	
701																	
702																	
703																	
704																	
705																	
706																	
707																	
708																	
709																	
70A																	
70B																	
70C																	
70D																	
70E																	
70F																	
710																	
711																	
712																	
713																	
714																	
715																	
716																	
717																	
718																	
719																	
71A																	
71B																	
71C																	
71D																	
71E																	
71F																	
720																	
721																	
722																	
723																	
724																	
725																	
726																	
727																	
728																	
729																	
72A																	
72B																	
72C																	
72D																	
72E																	
72F																	
730																	
731																	
732																	
733																	
734																	
735																	
736																	
737																	
738																	
739																	
73A																	
73B																	
73C																	
73D																	
73E																	
73F																	
MODEL									MODEL								
LETTER NO.									LETTER NO.								

MEMORY MAP (Continued)

MODEL : GA-7_IXC129WJN1	SEM PCD SOFTWARE GROUP	TV DESIGN ENGINEERING	TV PRODUCTION ENGINEERING
	ISSUED DATE :1 MARCH 2007	ISSUED DATE :	ISSUED DATE : 28.JUNE.2007
EEPROM CHECK DATA LIST 30	MANAGER	MANAGER	MANAGER MATSUNAGA
	CHIEF	CHIEF	CHIEF ISMAIL
	ENGINEER Tan	ENGINEER	ENGINEER CHIN

SLAVE ADDRESS : A0(00-FF) A2(100-1FF) A4(200-2FF) A6(300-3FF) A8(400-4FF) AA(500-5FF) AC(600-6FF) AE(700-7FF)

ADDRESS	DATA								MICON	EEPROM	EEPROM	CHASSIS		CTV FINAL		LAST INITIAL	
(HEX)	D7	D6	D5	D4	D3	D2	D1	D0	DEFAULT	RANGE	WRITE(CPU)	CHECK DATA	CHECK TYPE	CHECK DATA	CHECK TYPE	SETTING DATA	REMARK
740																	
741																	
742																	
743																	
744																	
745																	
746																	
747																	
748																	
749																	
74A																	
74B																	
74C																	
74D																	
74E																	
74F																	
750																	
751																	
752																	
753																	
754																	
755																	
756																	
757																	
758																	
759																	
75A																	
75B																	
75C																	
75D																	
75E																	
75F																	
760																	
761																	
762																	
763																	
764																	
765																	
766																	
767																	
768																	
769																	
76A																	
76B																	
76C																	
76D																	
76E																	
76F																	
770																	
771																	
772																	
773																	
774																	
775																	
776																	
777																	
778																	
779																	
77A																	
77B																	
77C																	
77D																	
77E																	
77F																	
MODEL									MODEL								
LETTER NO.									LETTER NO.								

MEMORY MAP (Continued)

MODEL : GA-7_IXC129WJN1	SEM PCD SOFTWARE GROUP	TV DESIGN ENGINEERING	TV PRODUCTION ENGINEERING
	ISSUED DATE :1 MARCH 2007	ISSUED DATE :	ISSUED DATE : 28.JUNE.2007
EEPROM CHECK DATA LIST 31	MANAGER	MANAGER	MANAGER MATSUNAGA
	CHIEF	CHIEF	CHIEF ISMAIL
	ENGINEER Tan	ENGINEER	ENGINEER CHIN

SLAVE ADDRESS : A0(00-FF) A2(100-1FF) A4(200-2FF) A6(300-3FF) A8(400-4FF) AA(500-5FF) AC(600-6FF) AE(700-7FF)

ADDRESS	DATA								MICON	EEPROM	EEPROM	CHASSIS		CTV FINAL		LAST INITIAL	
(HEX)	D7	D6	D5	D4	D3	D2	D1	D0	DEFAULT	RANGE	WRITE(CPU)	CHECK DATA	CHECK TYPE	CHECK DATA	CHECK TYPE	SETTING DATA	REMARK
780																	
781																	
782																	
783																	
784																	
785																	
786																	
787																	
788																	
789																	
78A																	
78B																	
78C																	
78D																	
78E																	
78F																	
790																	
791																	
792																	
793																	
794																	
795																	
796																	
797																	
798																	
799																	
79A																	
79B																	
79C																	
79D																	
79E																	
79F																	
7A0																	
7A1																	
7A2																	
7A3																	
7A4																	
7A5																	
7A6																	
7A7																	
7A8																	
7A9																	
7AA																	
7AB																	
7AC																	
7AD																	
7AE																	
7AF																	
7B0																	
7B1																	
7B2																	
7B3																	
7B4																	
7B5																	
7B6																	
7B7																	
7B8																	
7B9																	
7BA																	
7BB																	
7BC																	
7BD																	
7BE																	
7BF																	
MODEL									MODEL								
LETTER NO.									LETTER NO.								

MEMORY MAP (Continued)

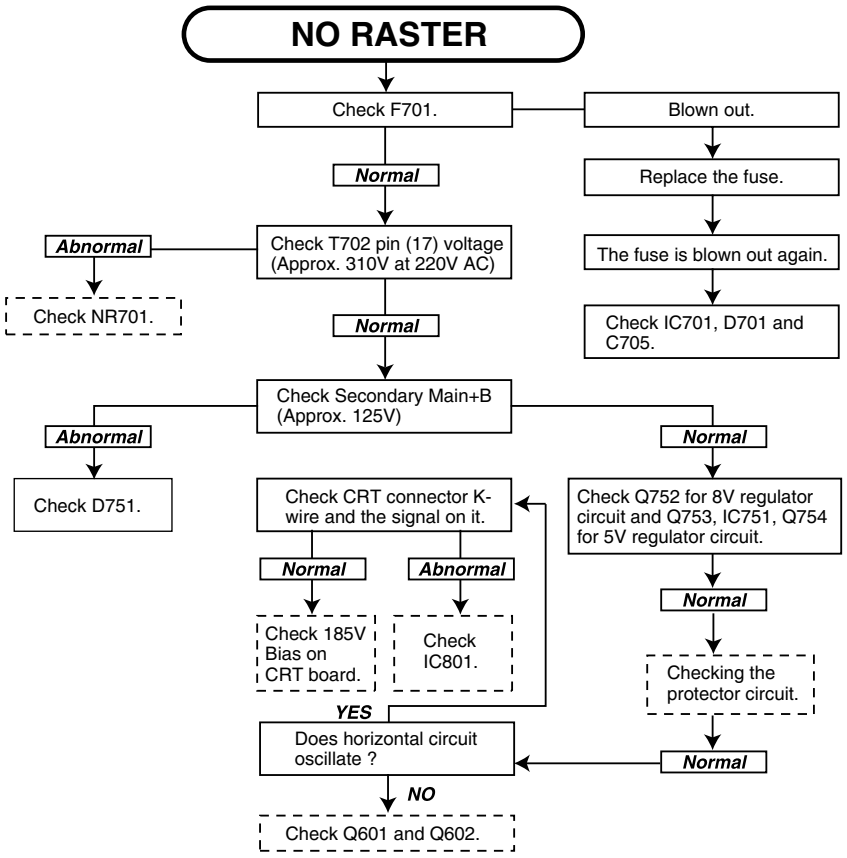
MODEL : GA-7_IXC129WJN1	SEM PCD SOFTWARE GROUP		TV DESIGN ENGINEERING			TV PRODUCTION ENGINEERING		
	ISSUED DATE :1 MARCH 2007		ISSUED DATE :			ISSUED DATE : 28.JUNE.2007		
EEPROM CHECK DATA LIST 32	MANAGER		MANAGER			MANAGER		MATSUNAGA
	CHIEF		CHIEF			CHIEF		ISMAIL
	ENGINEER	Tan	ENGINEER			ENGINEER		CHIN

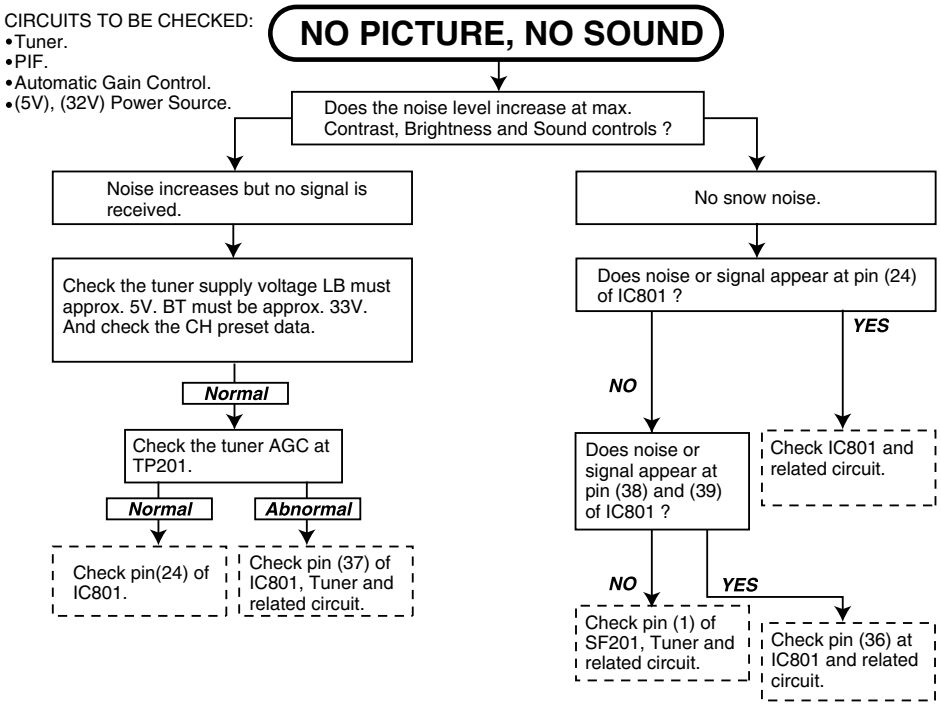
SLAVE ADDRESS : A0(00-FF) A2(100-1FF) A4(200-2FF) A6(300-3FF) A8(400-4FF) AA(500-5FF) AC(600-6FF) AE(700-7FF)

ADDRESS	DATA								MICON	EEPROM	EEPROM	CHASSIS		CTV FINAL		LAST INITIAL	REMARK
(HEX)	D7	D6	D5	D4	D3	D2	D1	D0	DEFAULT	RANGE	WRITE(CPU)	CHECK DATA	CHECK TYPE	CHECK DATA	CHECK TYPE	SETTING DATA	
7C0																	
7C1																	
7C2																	
7C3																	
7C4																	
7C5																	
7C6																	
7C7																	
7C8																	
7C9																	
7CA																	
7CB																	
7CC																	
7CD																	
7CE																	
7CF																	
7D0																	
7D1																	
7D2																	
7D3																	
7D4																	
7D5																	
7D6																	
7D7																	
7D8																	
7D9																	
7DA																	
7DB																	
7DC																	
7DD																	
7DE																	
7DF																	
7E0																	
7E1																	
7E2																	
7E3																	
7E4																	
7E5																	
7E6																	
7E7																	
7E8																	
7E9																	
7EA																	
7EB																	
7EC																	
7ED																	
7EE																	
7EF																	
7F0																	
7F1																	
7F2																	
7F3																	
7F4																	
7F5																	
7F6																	
7F7																	
7F8																	
7F9																	
7FA																	
7FB																	
7FC																	
7FD																	
7FE																	
7FF																	
MODEL									MODEL								
LETTER NO.									LETTER NO.								

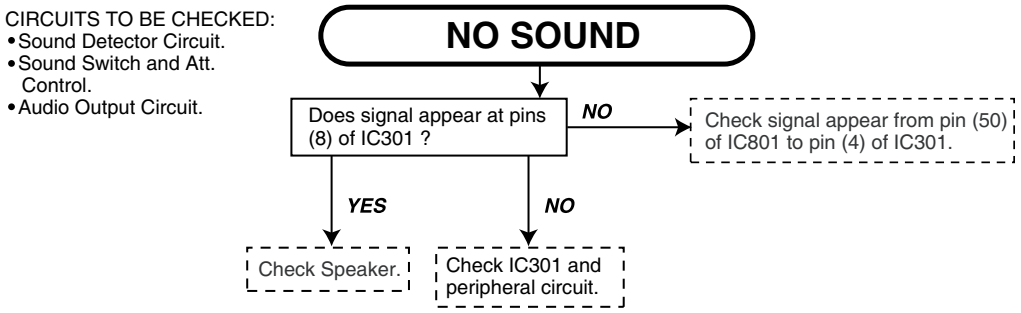
CHAPTER 5. TROUBLE SHOOTING FLOWCHART

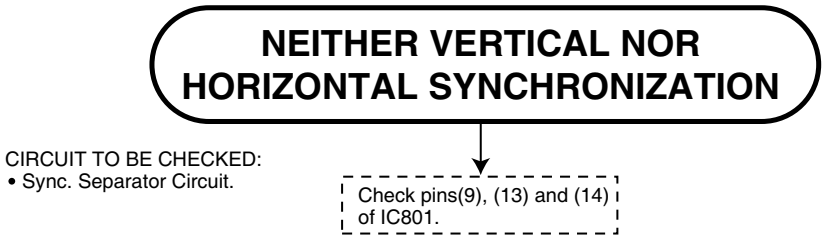
[1] TROUBLE SHOOTING FLOWCHART

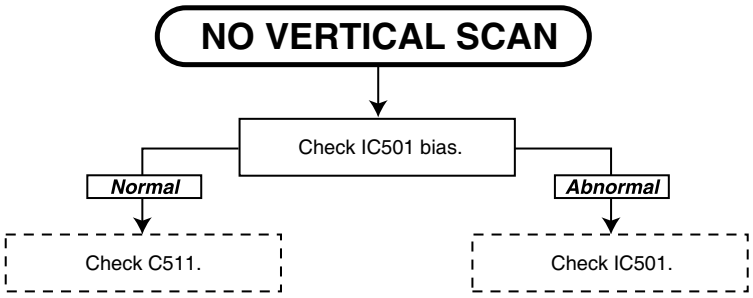



CIRCUITS TO BE CHECKED:
•Tuner.
•PIF.
•Automatic Gain Control.
•(5V), (32V) Power Source.
NO PICTURE, NO SOUND
Does the noise level increase at max. Contrast, Brightness and Sound controls ?
Noise increases but no signal is received.
No snow noise.
Check the tuner supply voltage LB must approx. 5V. BT must be approx. 33V. And check the CH preset data.
Does noise or signal appear at pin (24) of IC801 ?
YES
NO
Normal
Check the tuner AGC at TP201.
Does noise or signal appear at pin (38) and (39) of IC801 ?
Check IC801 and related circuit.
Normal
Abnormal
NO
YES
Check pin(24) of IC801.
Check pin (37) of IC801, Tuner and related circuit.
Check pin (1) of SF201, Tuner and related circuit.
Check pin (36) at IC801 and related circuit.

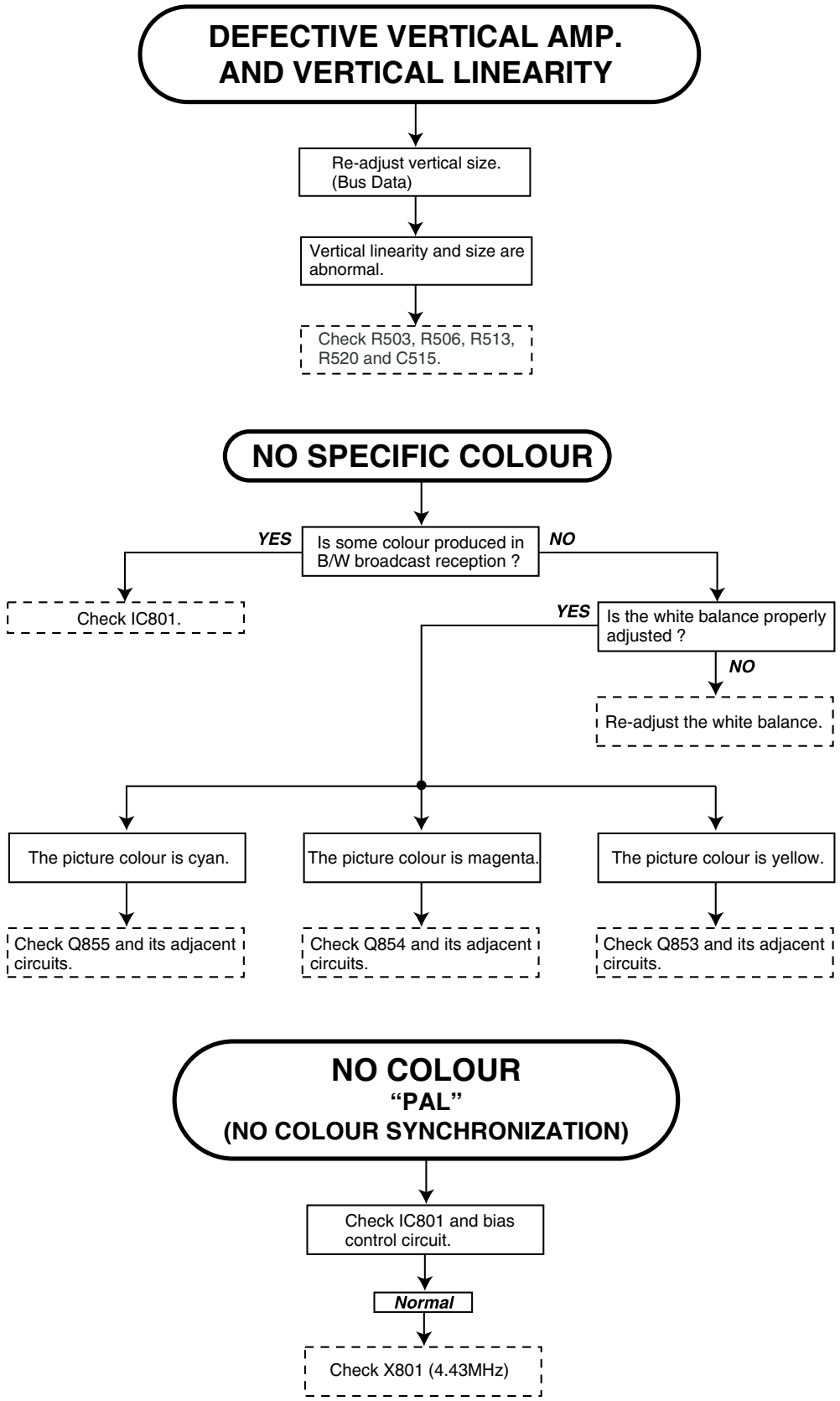
TROUBLE SHOOTING FLOWCHART (Continued)


CIRCUITS TO BE CHECKED:
• Sound Detector Circuit.
• Sound Switch and Att. Control.
• Audio Output Circuit.
NO SOUND
Does signal appear at pins (8) of IC301 ?
NO
Check signal appear from pin (50) of IC801 to pin (4) of IC301.
YES
NO
Check Speaker.
Check IC301 and peripheral circuit.


NEITHER VERTICAL NOR HORIZONTAL SYNCHRONIZATION
CIRCUIT TO BE CHECKED:
• Sync. Separator Circuit.
Check pins(9), (13) and (14) of IC801.



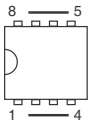
TROUBLE SHOOTING FLOWCHART (Continued)



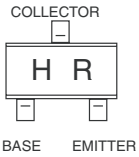
CHAPTER 6. SOLID STATE DEVICE BASE DIAGRAM

[1] SOLID STATE DEVICE BASE DIAGRAM

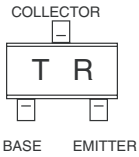
TOP VIEW



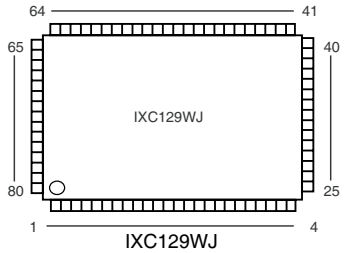
M24C08



C3928



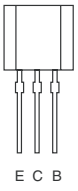
A1530



IXC129WJ

EX1393C

SIDE VIEW



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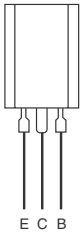
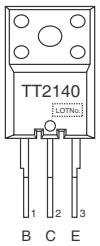
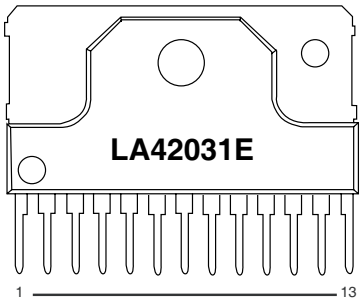


2SD468-C
2SC2235



TT2140



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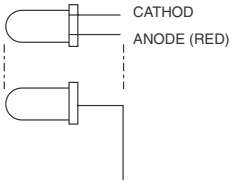

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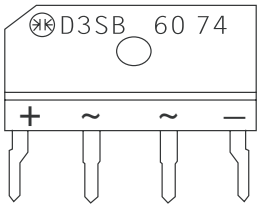
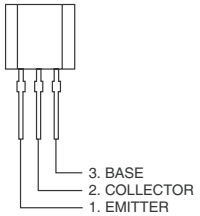
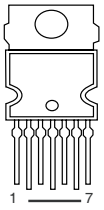


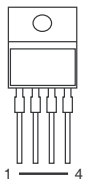
DX0476CE



BF422



STV9302B



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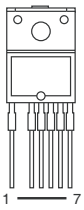
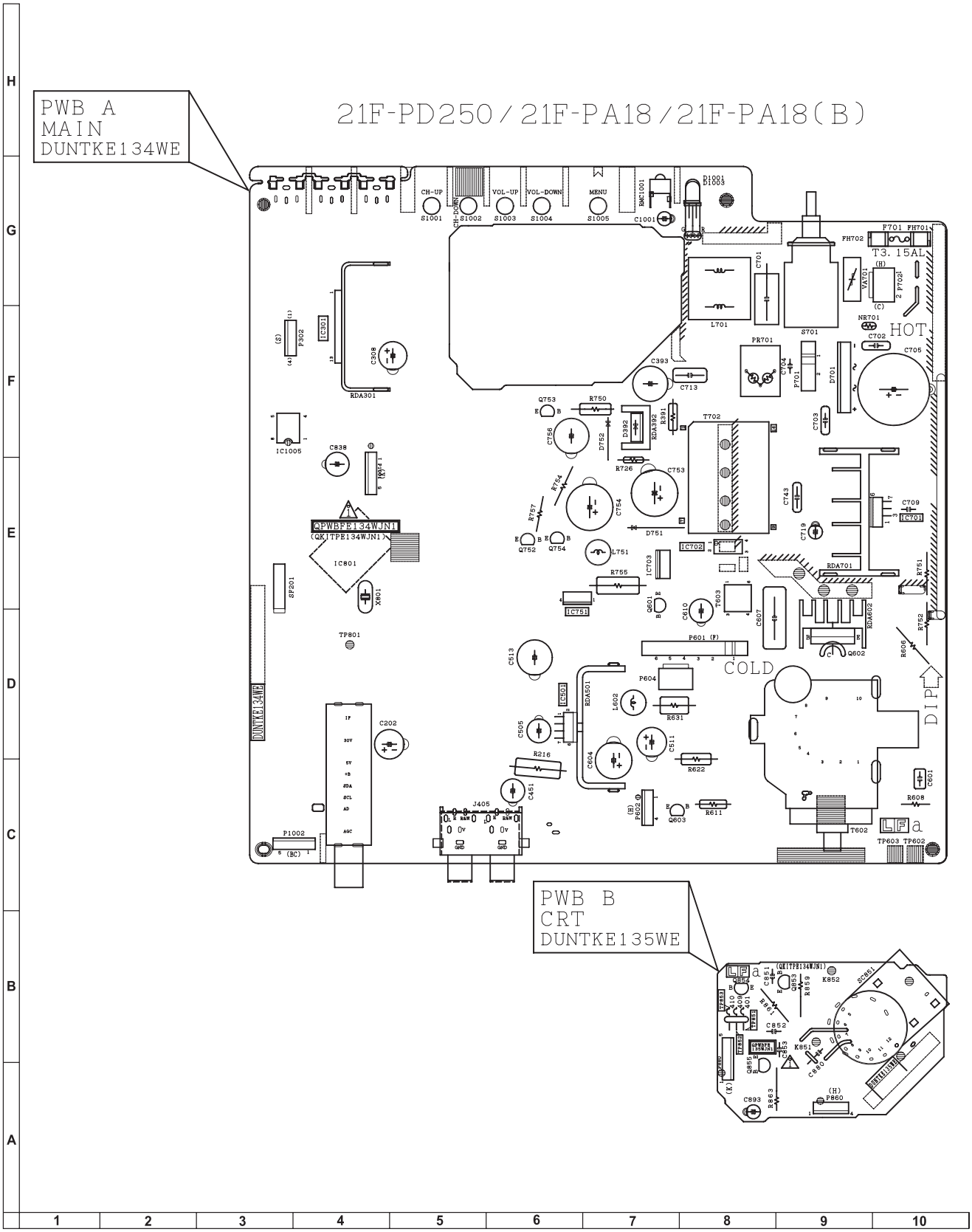
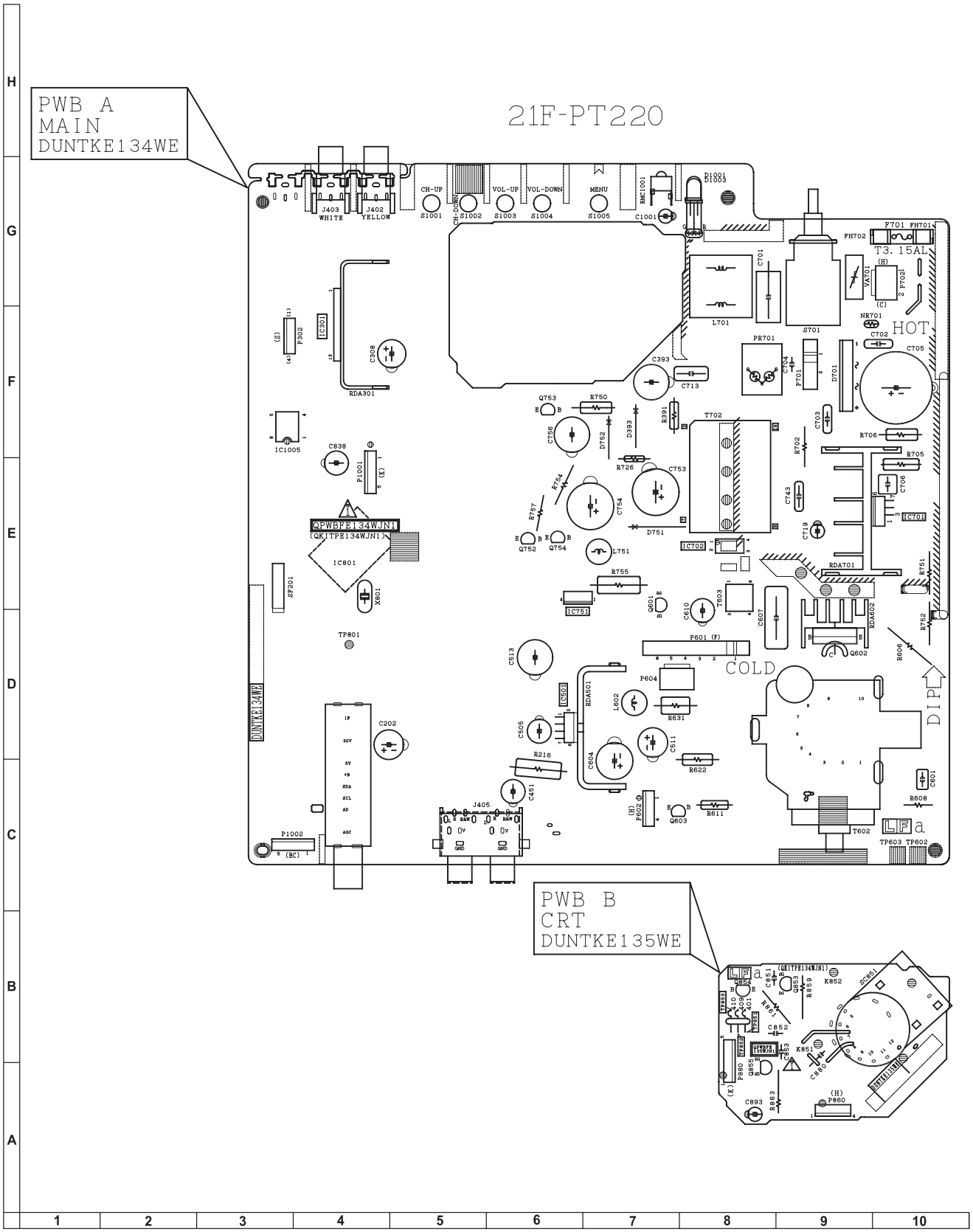


STRW5453

CHAPTER 7. CHASSIS LAYOUT

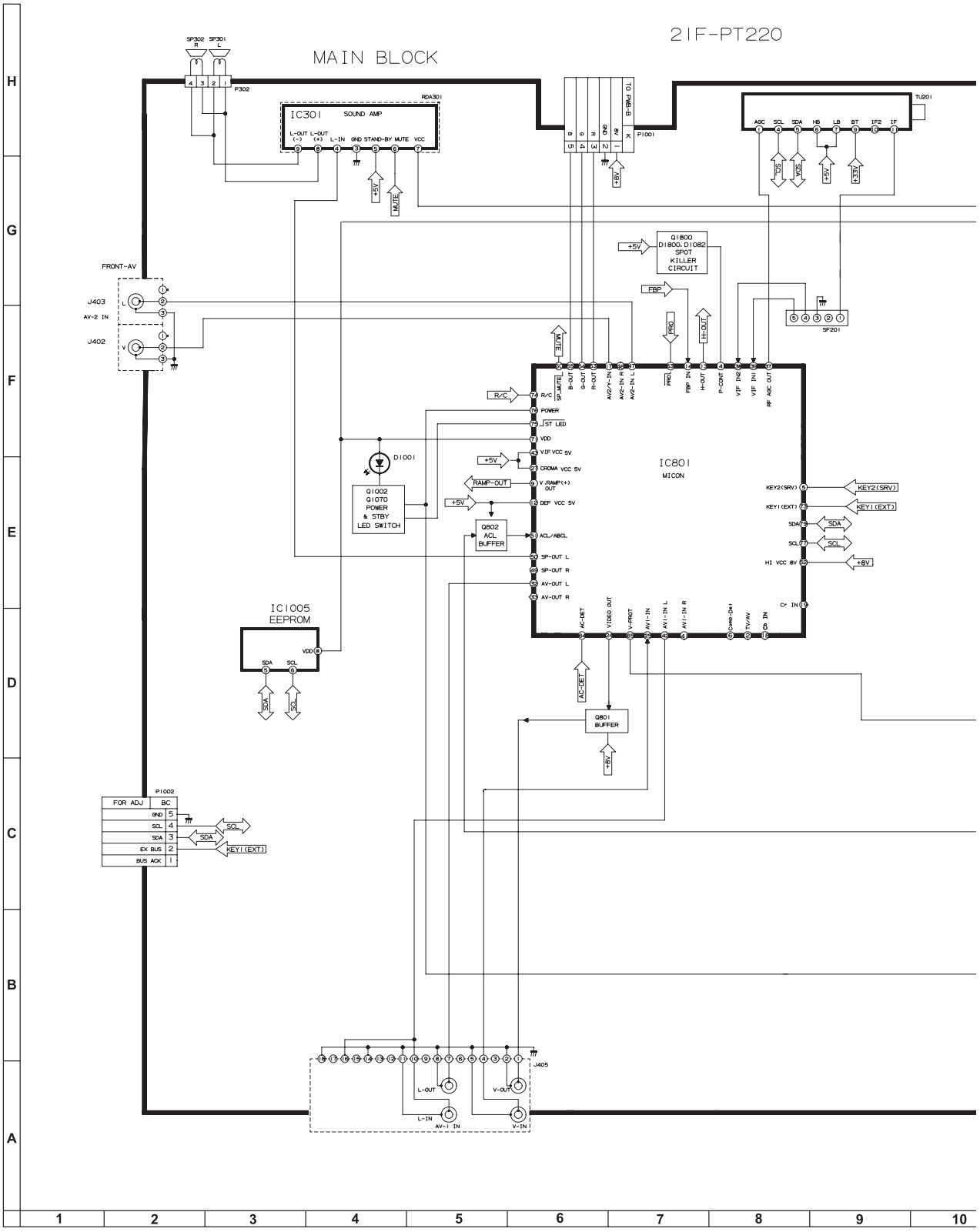
[1] CHASSIS LAYOUT

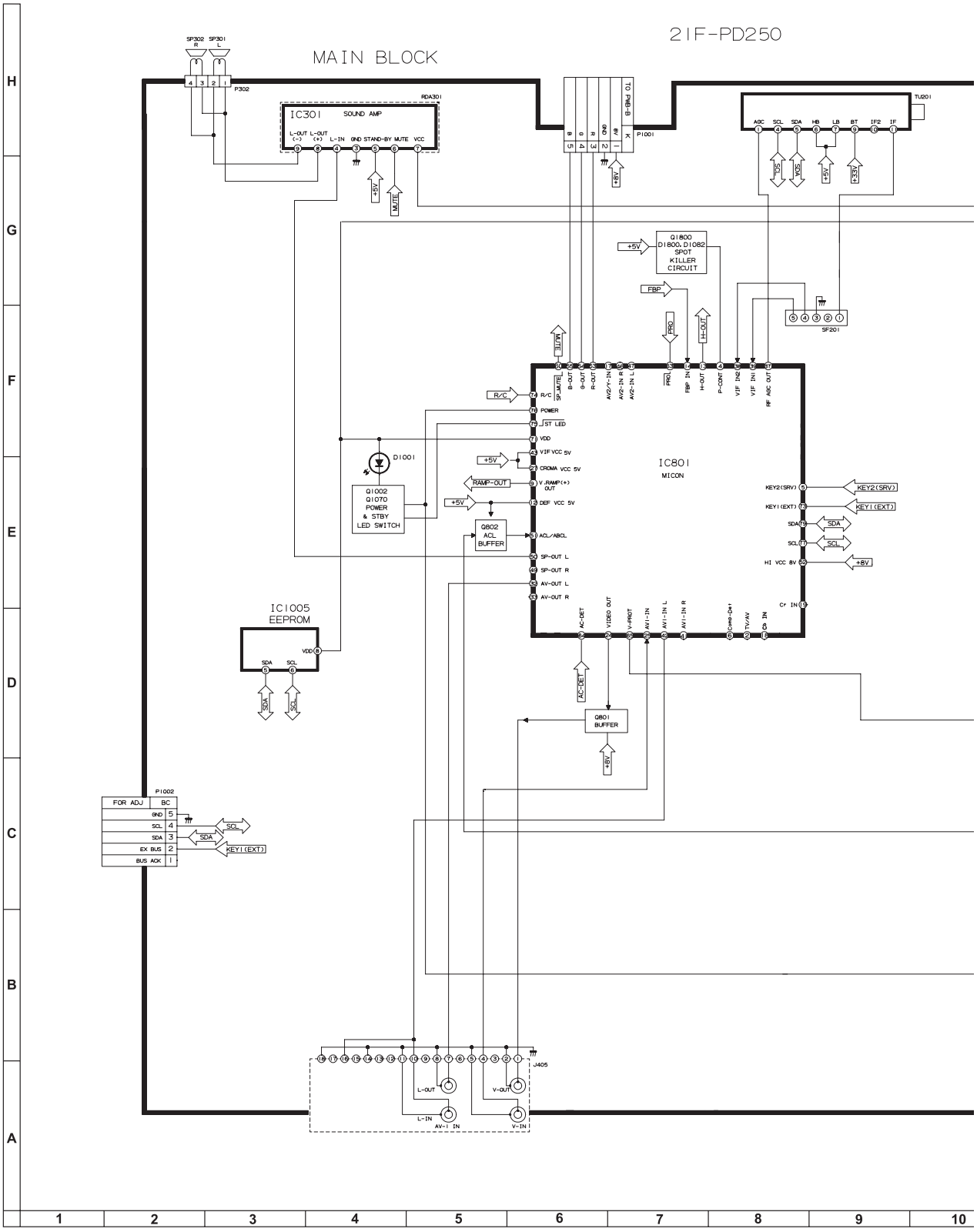


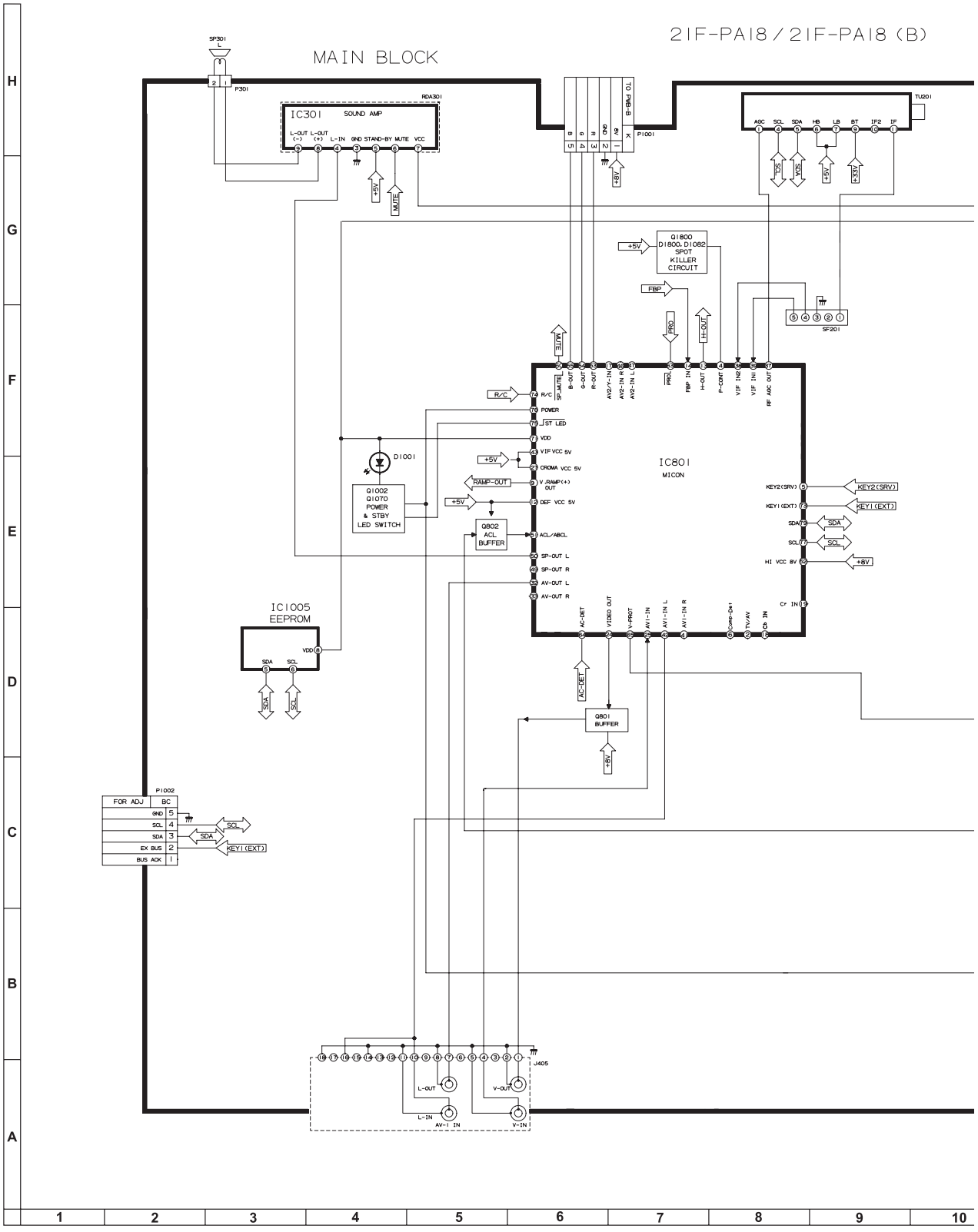

21F-PT220
PWB A
MAIN
DUNTKE134WE
PWB B
CRT
DUNTKE135WE
CH-UP
CH-DOWN
VOL-UP
VOL-DOWN
MENU
J403
WHITE
J402
YELLOW
T3. 15AL
HOT
COLD
DIP
QPWBFE134WJN1
(QK)TPE134WJN1)
DUNTKE134WE
H
G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10

CHAPTER 8. BLOCK DIAGRAM

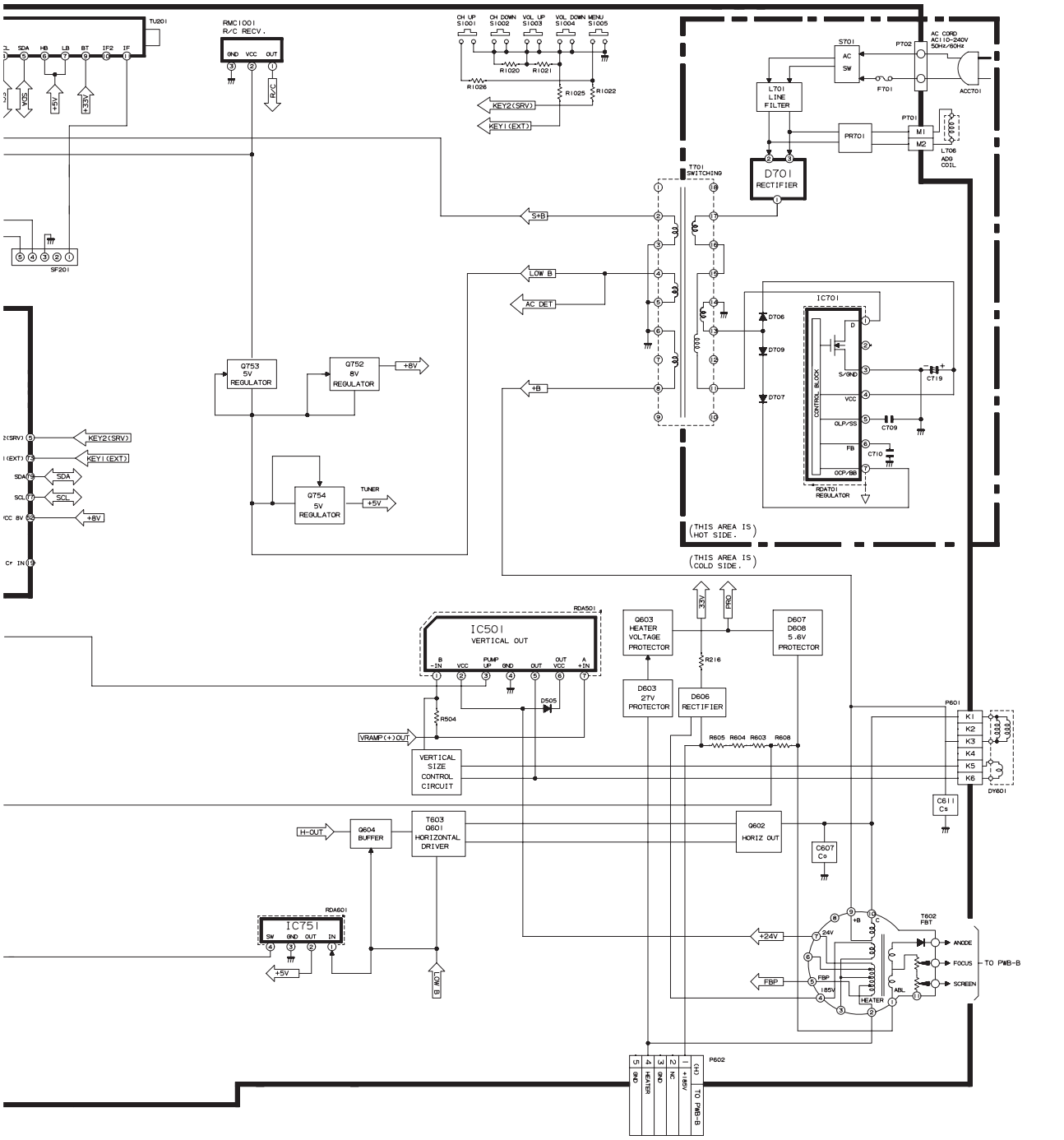
[1] BLOCK DIAGRAM: MAIN UNIT




21F-PD250
MAIN BLOCK
IC301 SOUND AMP
IC801 MICON
IC1005 EEPROM
Q1800 D1800, D1082 SPOT KILLER CIRCUIT
Q1002 Q1070 POWER & STBY LED SWITCH
Q802 ACL BUFFER
Q801 BUFFER
D1001
P1002
J405
SF201
TU201
RDA301
P1001
P302
SP302 R
SP301 L
L-OUT
L-IN
AV-I IN
V-OUT
V-IN
+5V
+8V
+33V
MUTE
SDA
SCL
FBP
H-OUT
R/C
KEY1(EXT)
KEY2(SRV)
RAMP-OUT
ACL/ABCL
SP-OUT L
SP-OUT R
AV-OUT L
AV-OUT R
VIDEO OUT
V-PROT
AV1-IN
AC-DET
FOR ADJ
EX BUS
BUS ACK


21F-PA18 / 21F-PA18 (B)
MAIN BLOCK
IC301 SOUND AMP
IC801 MICON
IC1005 EEPROM
Q1800 D1800, D1082 SPOT KILLER CIRCUIT
Q1002 Q1070 POWER & STBY LED SWITCH
Q802 ACL BUFFER
Q801 BUFFER
D1001
SF201
TU201
P1001
P1002
J405
R/C
POWER
ST LED
VDD
VIF VCC 5V
CROMA VCC 5V
V_RAMP(+) OUT
DEF VCC 5V
ACL/ABCL
SP-OUT L
SP-OUT R
AV-OUT L
AV-OUT R
SP_MUTE
B-OUT
G-OUT
R-OUT
AV2/Y-IN
AV2-IN R
AV2-IN L
PRO
FBP IN
H-OUT
P-CONT
VIF IN2
VIF IN1
RF AGC OUT
AC-DET
VIDEO OUT
V-PROT
AV1-IN
AV1-IN L
AV1-IN R
Comp-Det
TV/AV
Cb IN
Cr IN
KEY2(SRV)
KEY1(EXT)
SDA
SCL
HI VCC 8V
+5V
+8V
+33V
MUTE
RAMP-OUT
FBP
L-OUT
V-OUT
L-IN
AV-1 IN
V-IN

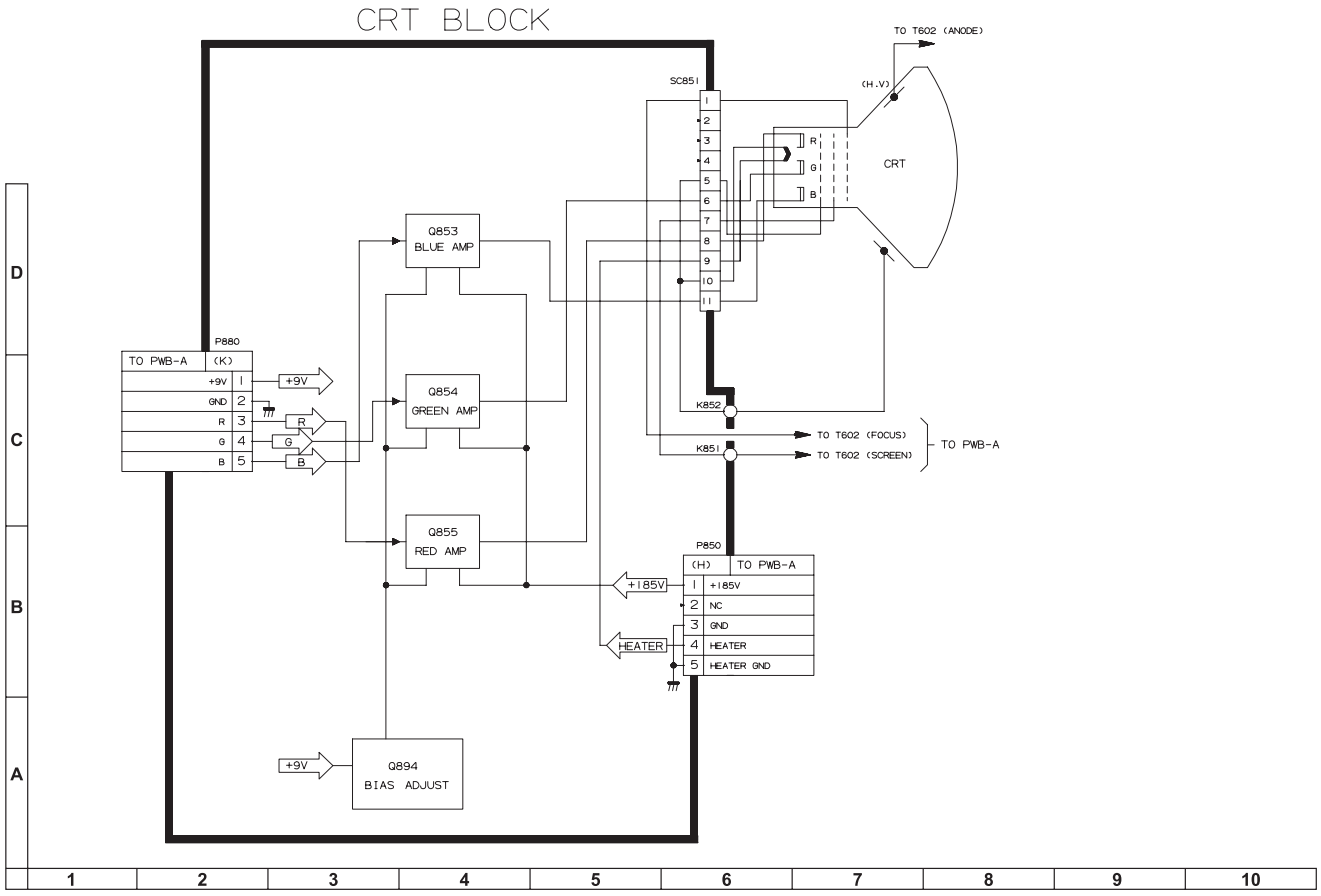
21F-PT220 / 21F-PD250 / 21F-PA18 / 21F-PA18 (B)



10	11	12	13	14	15	16	17	18	19

[2] BLOCK DIAGRAM: CRT UNIT

21F-PT220 / 21F-PD250 /
21F-PA18 / 21F-PA18 (B)



CHAPTER 9. DESCRIPTION OF SCHEMATIC DIAGRAM

[1] DESCRIPTION OF SCHEMATIC DIAGRAM

SAFETY NOTES:

1. DISCONNECT THE AC PLUG FROM THE AC OUTLET BEFORE REPLACING PARTS.
2. SEMICONDUCTOR HEAT SINKS SHOULD BE REGARDED AS POTENTIAL SHOCK HAZARDS WHEN THE CHASSIS IS OPERATING.

IMPORTANT SAFETY NOTICE:

PARTS MARKED WITH " ⚠ " ( ) ARE IMPOTANT FOR MAINTAINING THE SAFETY OF THE SET. BE SURE TO REPLACE THESE PARTS WITH SPECIFIED ONES FOR MAINTAINING THE SAFETY AND PERFORMANCE OF THE SET.

SERVICE PRECAUTION:

THE AREA ENCLOSED BY THIS LINE (—— - ——) IS DIRECTLY CONNECTED WITH AC MAINS VOLTAGE. WHEN SERVICING THE AREA, CONNECT AN ISOLATING TRANSFORMER BETWEEN TV RECEIVER AND AC LINE TO ELIMINATE HAZARD OF ELECTRIC SHOCK.

CAUTION:

This circuit diagram is a standard one, prited circuits may be subject to change for product improvement without prior notice.

NOTES:

1. The unit of resistance "ohm" is omitted. (K = 1000 ohms, M = Mega ohm).
2. All resistors are 1/16 watt, unless otherwise noted.
3. All capacitors are μF, unless otherwise noted. (P = μμF).

VOLTAGE MEASUREMENT CONDITIONS:

1. Voltages in parenthesis measured with no signal.
2. Voltages without parenthesis measured with 3mV B & W or Colour signal.
3. All the voltages in each point are measured with VTVM.

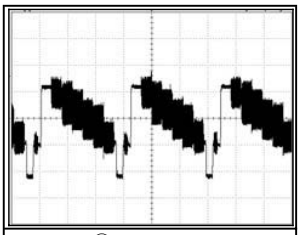
WAVEFORM MEASUREMENT CONDITIONS:

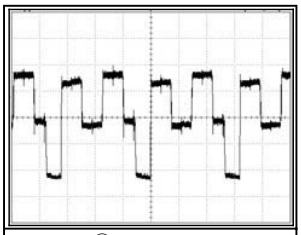
1. The colour bar generator signal of 1.0V peak applied at pin (25) of IC801.
2. Approximately 4V AGC bias.

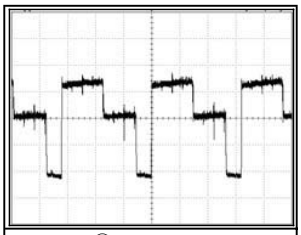
CHAPTER 10. WAVEFORMS

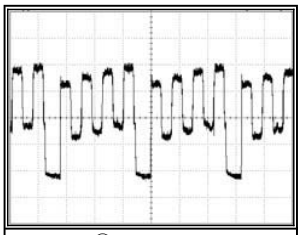
[1] WAVEFORMS

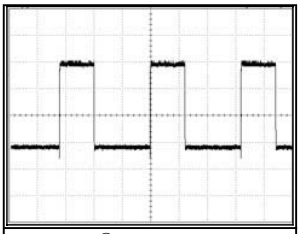
WAVEFORMS

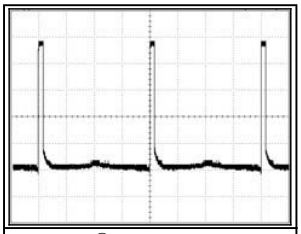

① 1.85 Vp-p (H)

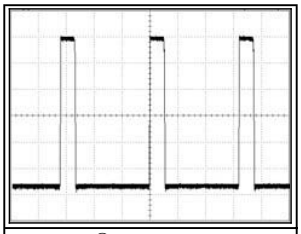

② 4.14 Vp-p (H)

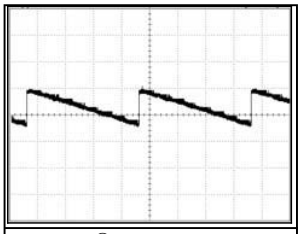

③ 3.76 Vp-p (H)

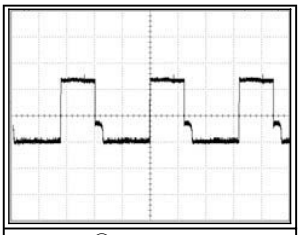

④ 4.38 Vp-p (H)

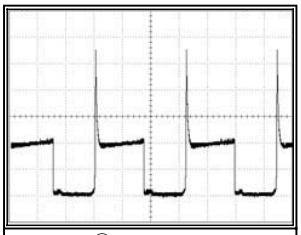

⑤ 3.2 Vp-p (H)

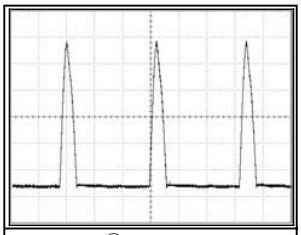

⑥ 4.88 Vp-p (V)

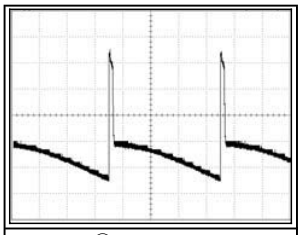

⑦ 5.78 Vp-p (H)

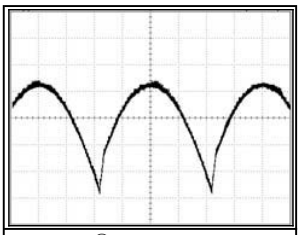

⑧ 1.42 Vp-p (V)

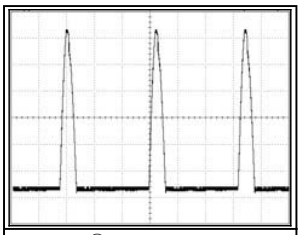

⑨ 2.46 Vp-p (H)

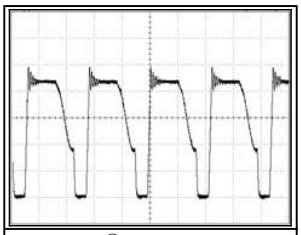

⑩ 55.4 Vp-p (H)

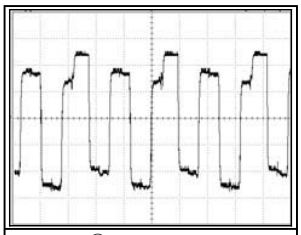

⑪ 1.1 KVp-p (H)

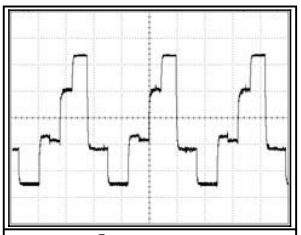

⑫ 50.2 Vp-p (V)

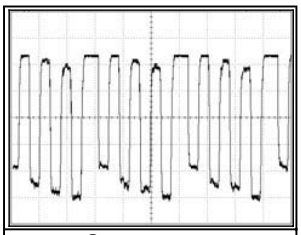

⑬ 4.22 Vp-p (V)


⑭ 121.6 Vp-p (H)


⑮ 498.0 Vp-p

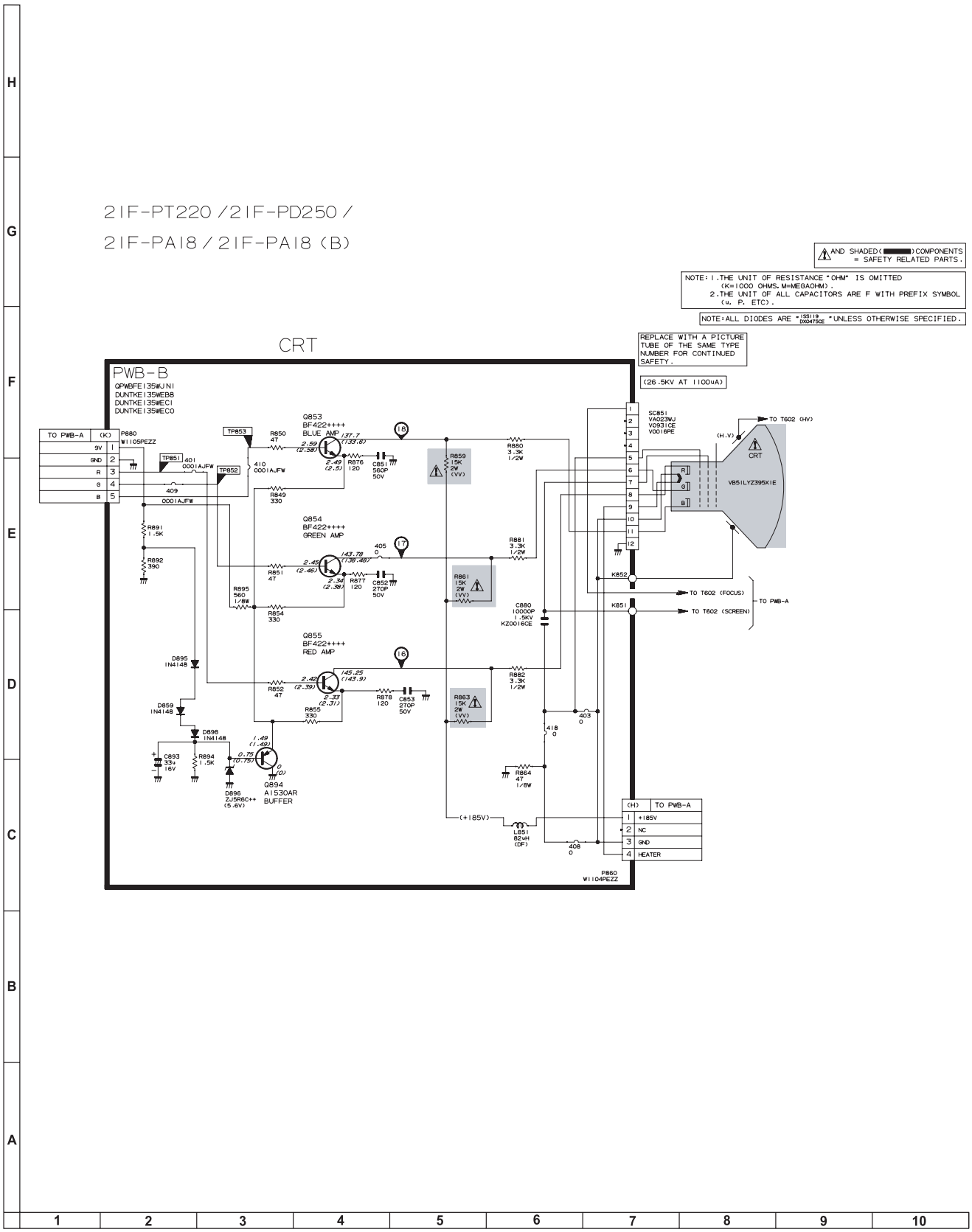

⑯ 101.0 Vp-p (H)


⑰ 98.8 Vp-p (H)

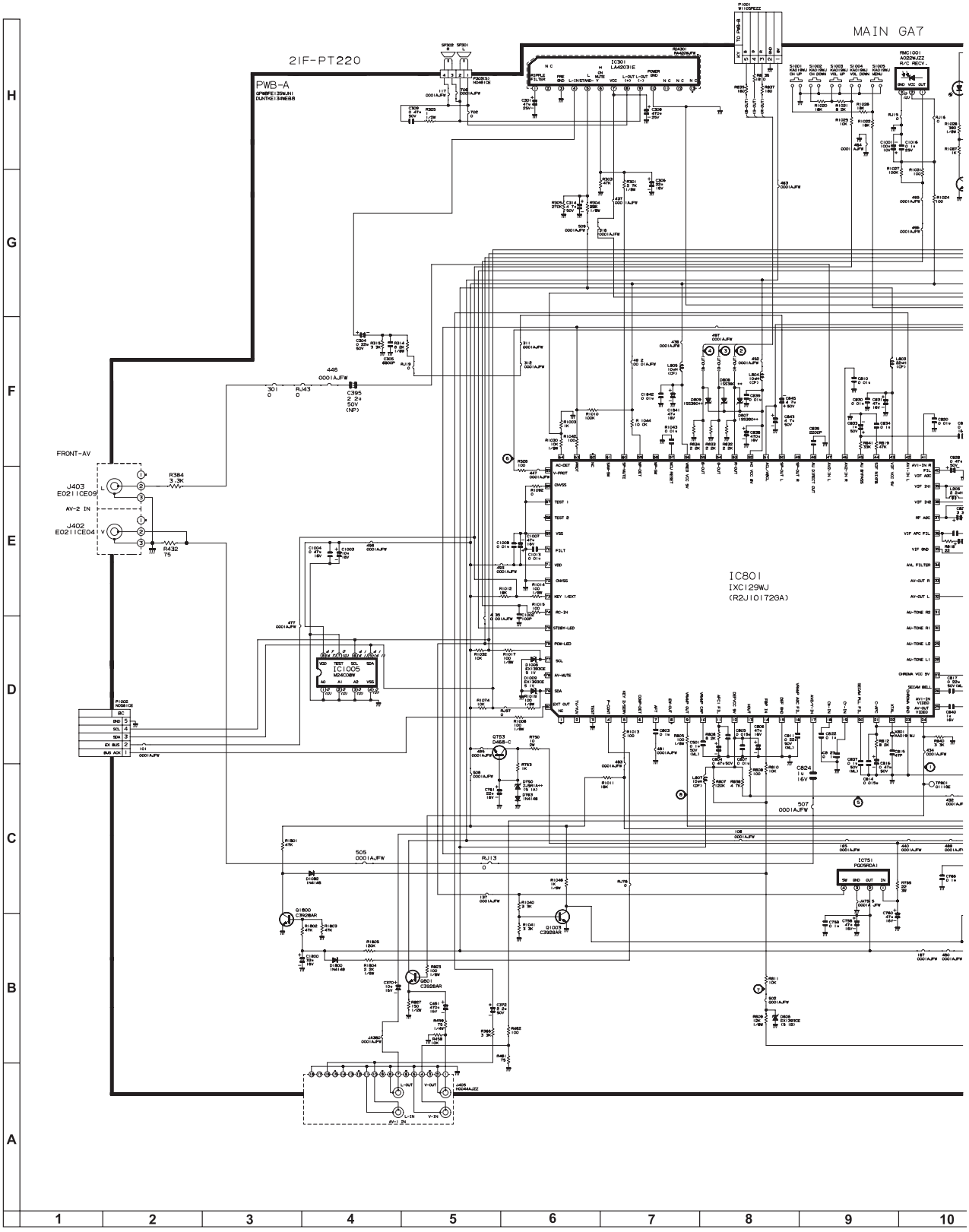

⑱ 101.67 Vp-p (H)

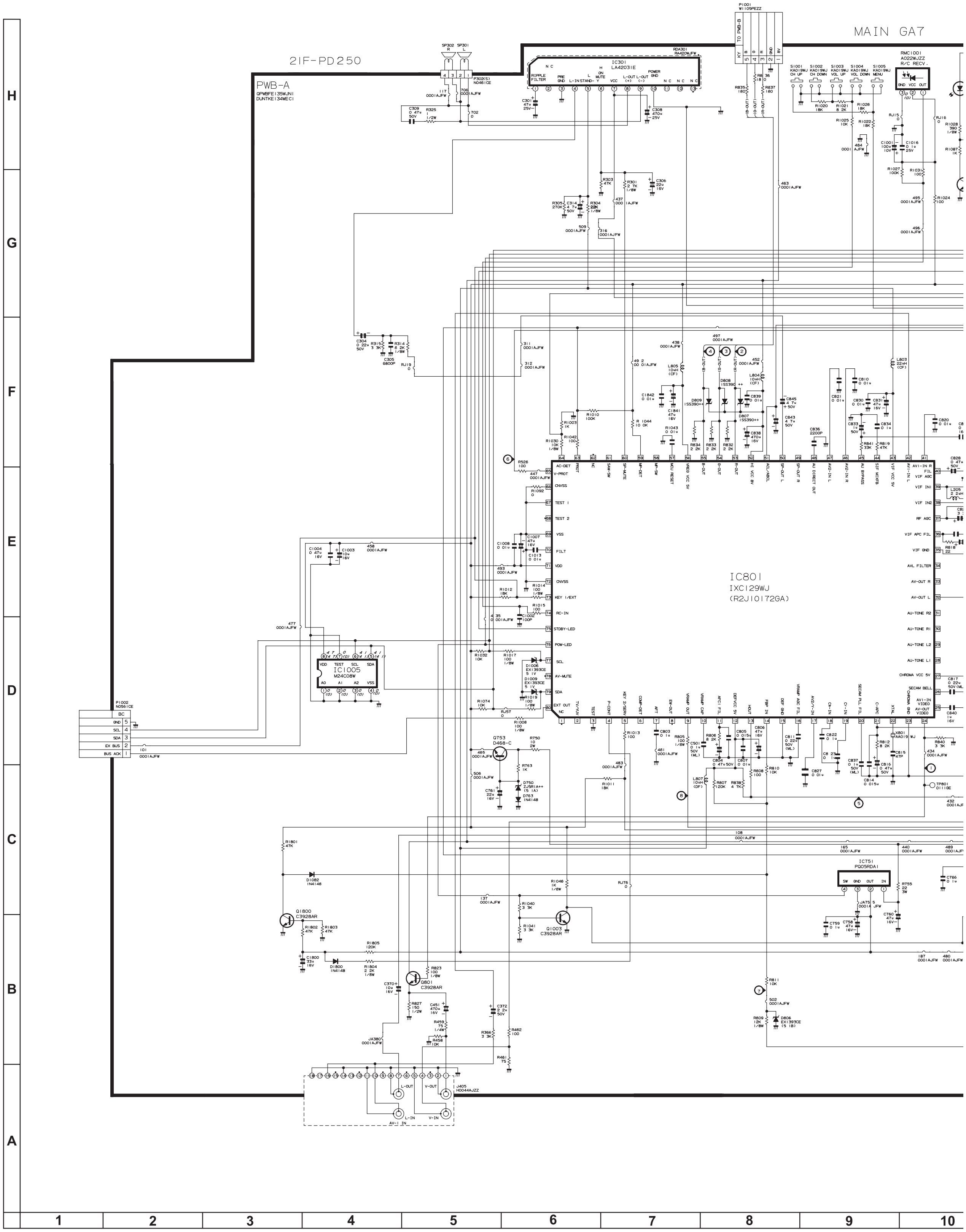
CHAPTER 11. SCHEMATIC DIAGRAM

[1] SCHEMATIC DIAGRAM: CRT UNIT



[2] SCHEMATIC DIAGRAM: MAIN UNIT




21F-PD250
PWB-A
QPWBFE135WJN1
DUNTKE134WEC1
MAIN GA7
P1001
W1105PEZZ
TO PWB-B
IC301
LA42031E
RDA301
RA420WJFW
SP302 R
SP301 L
P302(S)
N0461CE
S1001 KA019WJ CH UP
S1002 KA019WJ CH DOWN
S1003 KA019WJ VOL UP
S1004 KA019WJ VOL DOWN
S1005 KA019WJ MENU
RMC1001
A022WJZZ
R/C RECV.
IC801
IXC129WJ
(R2J10172GA)
IC1005
M24C08W
P1002
N0561CE
GND
SCL
SDA
EX BUS
BUS ACK
Q753
D468-C
Q1800
C3928AR
Q801
C3928AR
Q1003
C3928AR
IC751
PQ05RDA1
J405
H0044AJZZ
L-OUT
V-OUT
L-IN
V-IN
AV-1 IN
H
G
F
E
D
C
B
A
1
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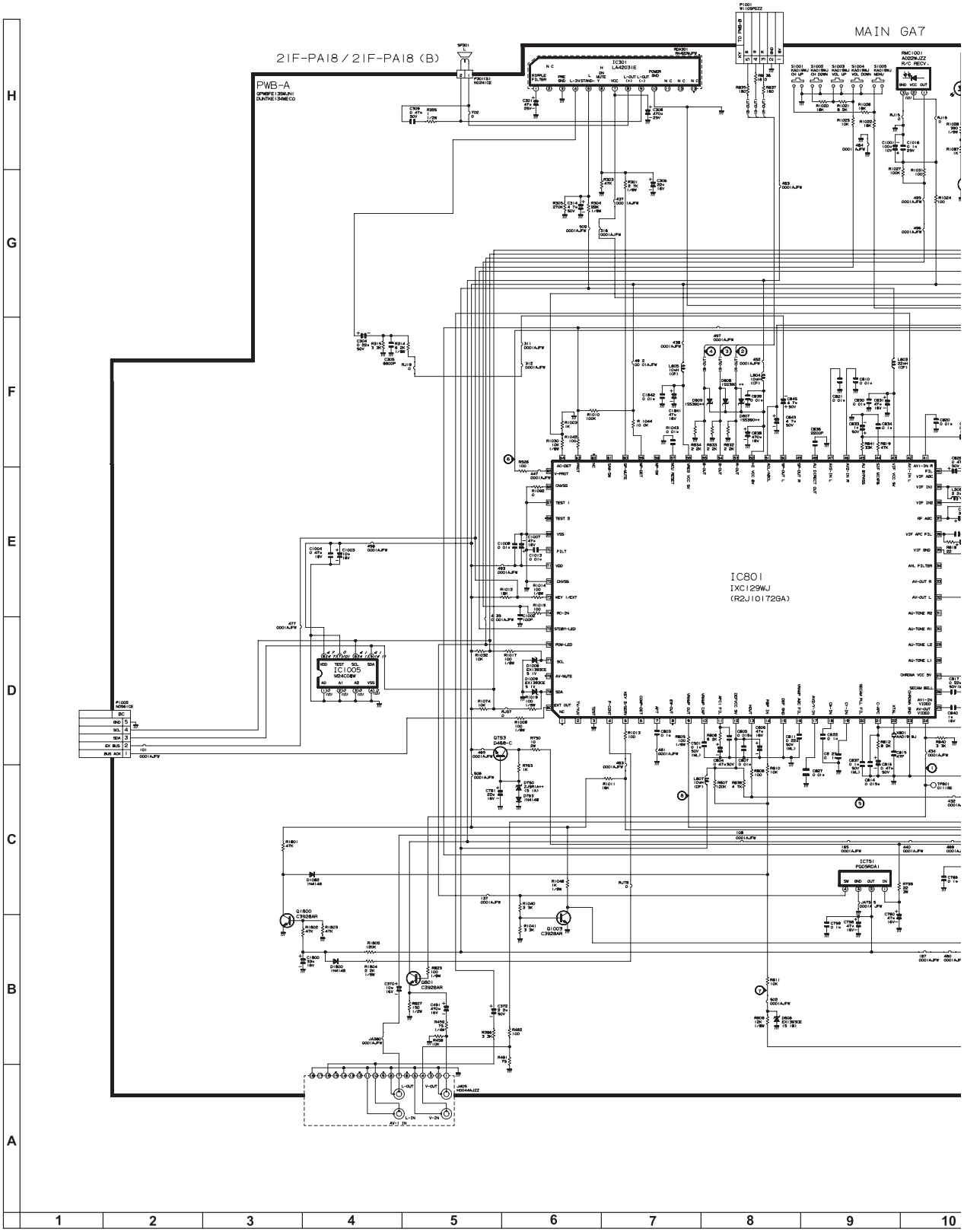
MAIN GA7
21F-PA18 / 21F-PA18 (B)
PWB-A
IC8001
IXC129WJ
(R2J101729GA)
IC1301
LA42031E
IC1005
M24C08-W
IC751
PQ05RDA1
H
G
F
E
D
C
B
A
1
2
3
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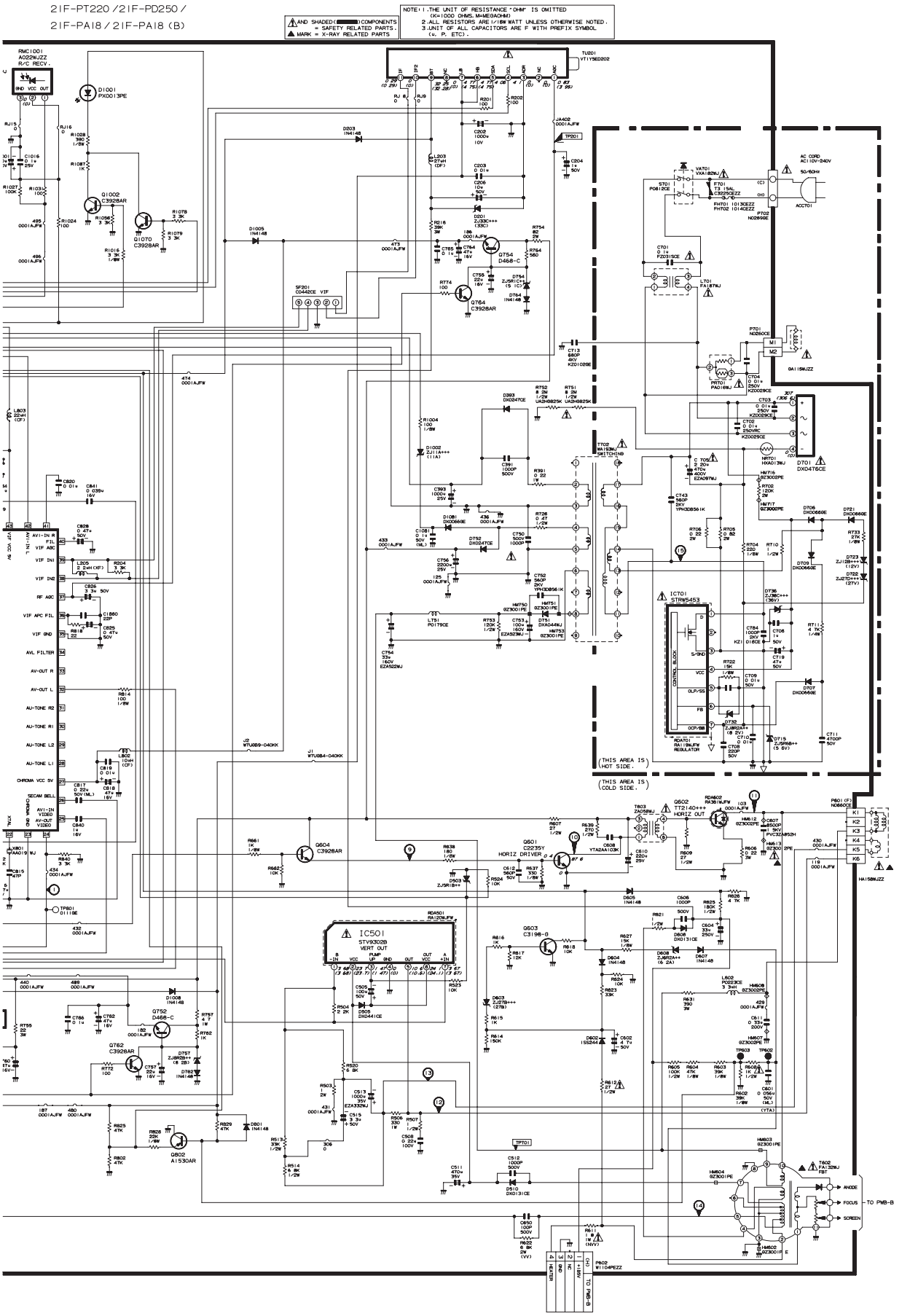
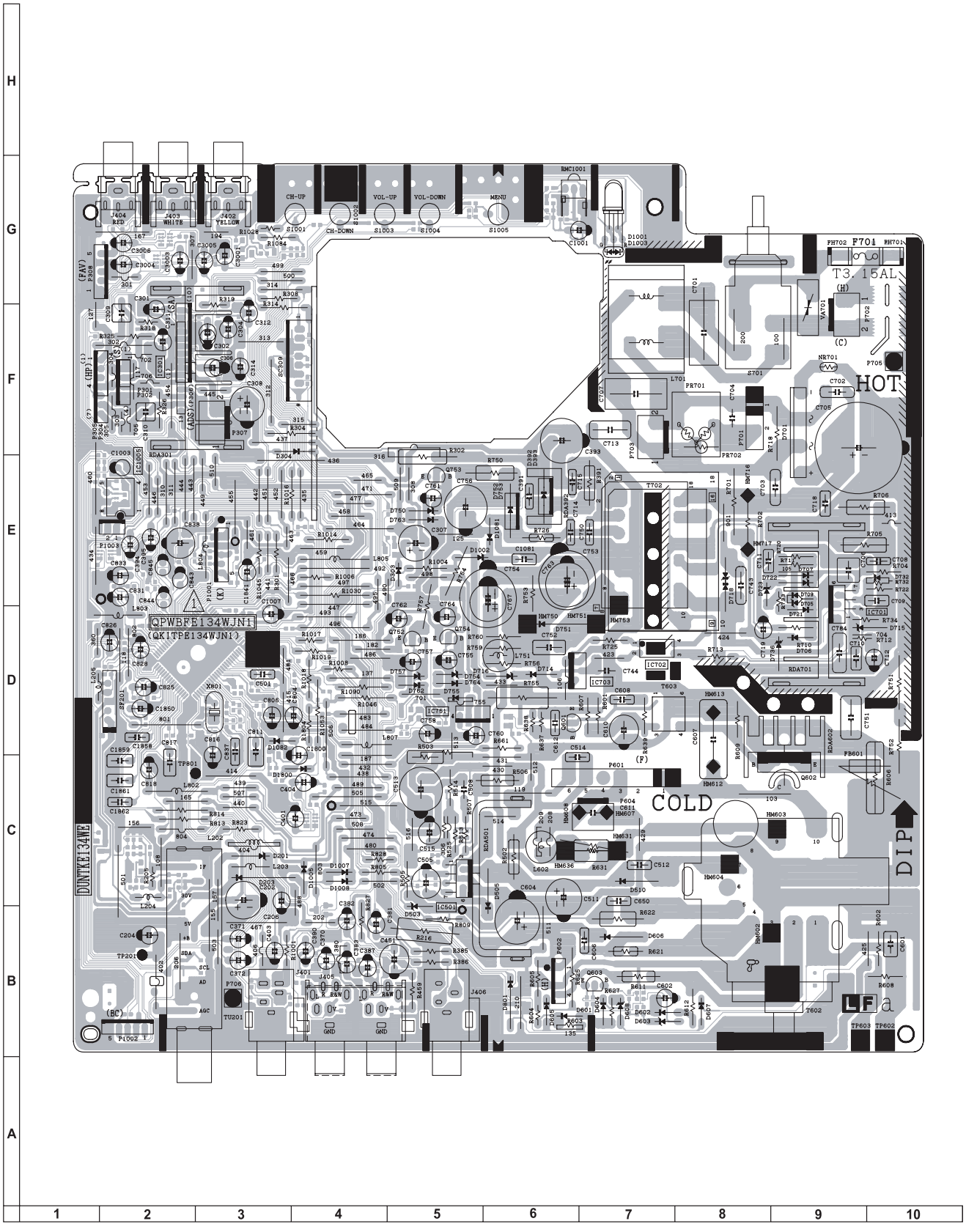
8
9
10



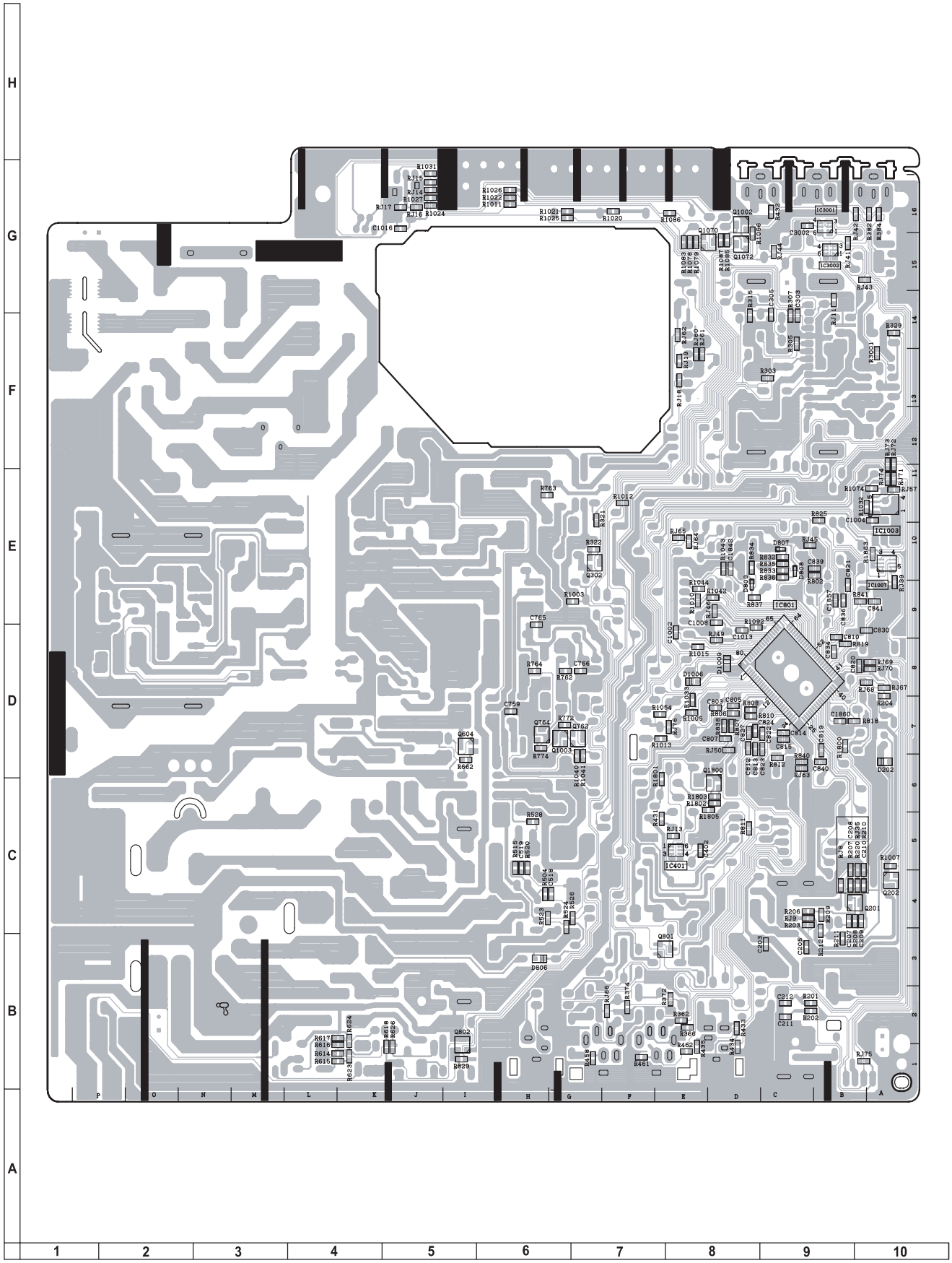
10	11	12	13	14	15	16	17	18	19

CHAPTER 12. PRINTED WIRING BOARD ASSEMBLIES

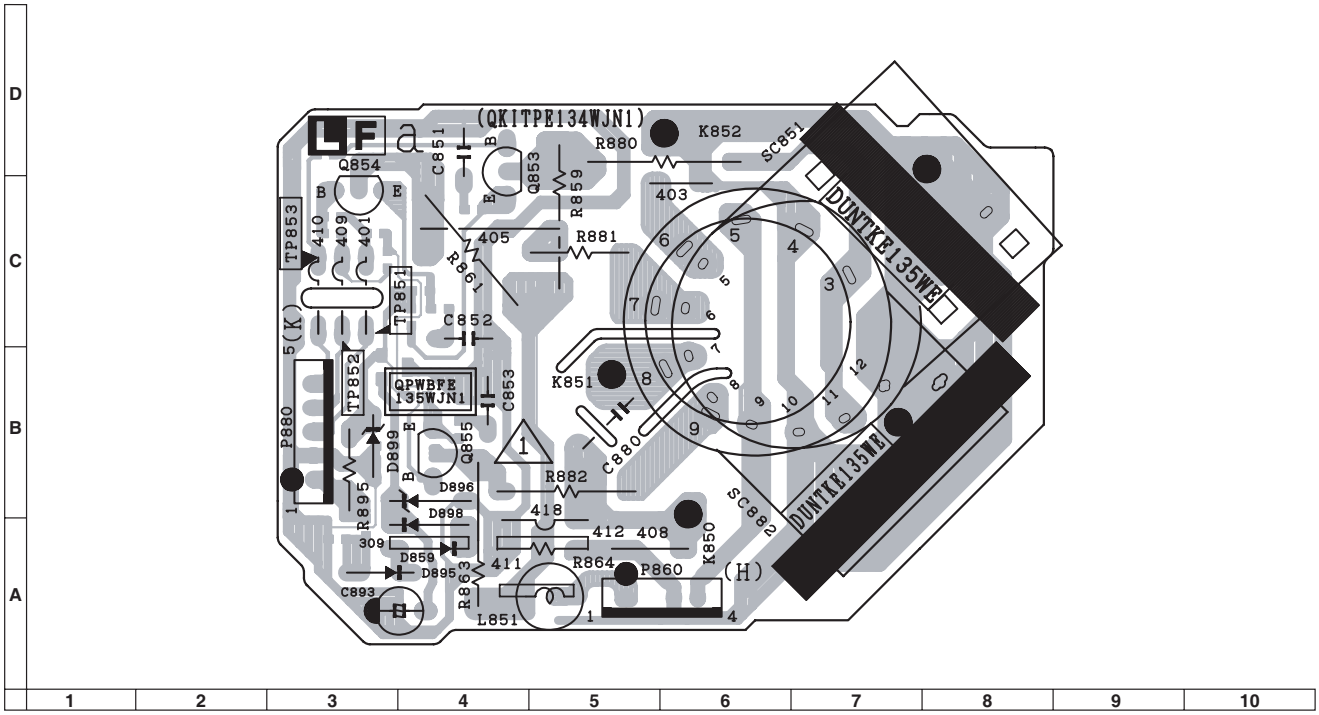
[1] PWB-A: MAIN COMPONENT SIDE



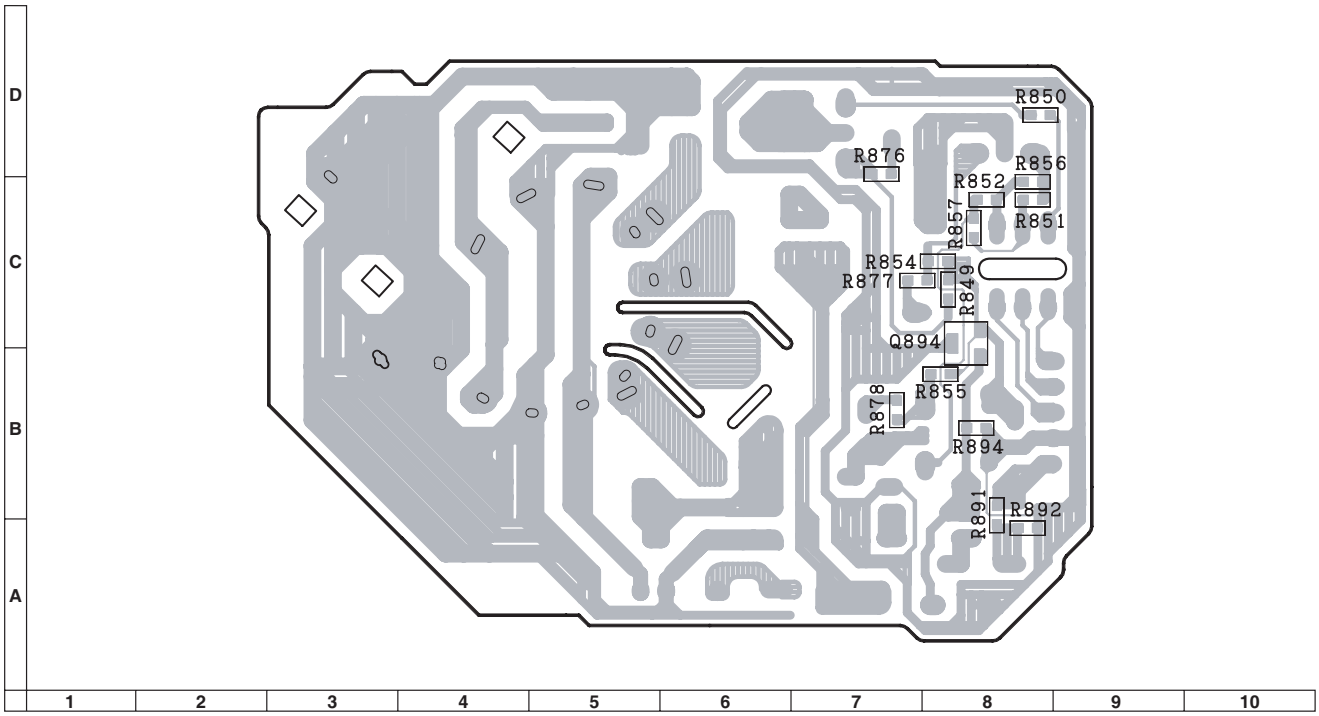
[2] PWB-A: MAIN CHIP SIDE



[3] PWB-B: CRT COMPONENT SIDE



[4] PWB-B: CRT CHIP SIDE



SHARP PARTS GUIDE

21F-PT220
21F-PD250
21F-PA18
MODEL 21F-PA18(B)

CONTENTS

[1] PICTURE TUBE

[2] PRINTED WIRING BOARD ASSEMBLIES

[3] MAIN UNIT

[4] CRT UNIT

[5] MISCELLANEOUS PARTS

[6] SUPPLIED ACCESSORIES

[7] CABINET PARTS

[8] PACKING PARTS

Parts marked with "⚠" are important for maintaining the safety of the set. Be sure to replace these parts with specified ones for maintaining the safety and performance of the set.

SHARP MANUFACTURING (THAILAND) CO.,LTD.

	NO.	PARTS CODE	DESCRIPTION
	[1] PICTURE TUBE		
⚠		VB51LYZ395X1E	Picture Tube (ITC Type)
⚠		RCILGA112WJZZ	Degaussing Coil
		QEARCA012WJZZ	Corting Ground Wire
	[2] PRINTED WIRING BOARD ASSEMBLIES		
		DUNTKE134WEB8	Main Unit (21F-PT220)
		DUNTKE134WEC0	Main Unit (21F-PA18, 21F-PA18(B))
		DUNTKE134WEC2	Main Unit (21F-PD250)
		DUNTKE135WEB8	CRT Unit (21F-PT220)
		DUNTKE135WEC0	CRT Unit (21F-PA18, 21F-PA18(B))
		DUNTKE135WEC1	CRT Unit (21F-PD250)
	[3] MAIN UNIT		
⚠	TU201	VTUVT1Y5ED202	Tuner
	IC301	VHILA42031E-1	I.C., LA42031E
⚠	IC501	VHISTV9302B-1	I.C., STV9302B
⚠	IC701	VHISTRW5453-1	I.C., STR-W5453A LF
	IC751	VHIPQ05RDA1-1	I.C., PQ050RDA1SZH
	IC801	RH-IXC129WJZZQ	I.C.,
	IC1005	VHIM24C08W/-1	I.C., M24C08
	Q601	VS2SC2235Y/1E+	Transistor, 2SC2235
	Q602	VSTT2140+++-F	Transistor, TT2140
	Q603	VS2SC3198-G-1+	Transistor, 2SC3198
	Q604	VS2SC3928AR-1*	Transistor, 2SC3928AR
	Q752	VS2SD468-C/-1+	Transistor, 2SD468
	Q753	VS2SD468-C/-1+	Transistor, 2SD468
	Q754	VS2SD468-C/-1+	Transistor, 2SD468
	Q762	VS2SC3928AR-1*	Transistor, 2SC3928AR
	Q764	VS2SC3928AR-1*	Transistor, 2SC3928AR
	Q801	VS2SC3928AR-1*	Transistor, 2SC3928AR
	Q802	VS2SA1530AR-1*	Transistor, 2SA1530AR
	Q1002	VS2SC3928AR-1*	Transistor, 2SC3928AR
	Q1003	VS2SC3928AR-1*	Transistor, 2SC3928AR
	Q1070	VS2SC3928AR-1*	Transistor, 2SC3928AR
	Q1800	VS2SC3928AR-1*	Transistor, 2SC3928AR
	D201	VHEZJ33C+++1E*	Zener Diode, 33V
	D203	VHD1N4148//-1*	Diode, 1N4148
	D393	RH-DX0247CEZZ	Diode, DX0247CE
	D503	VHEZJ5R1B++1E*	Zener Diode, 5.1V
	D505	RH-DX0441CEZZ*	Diode, DX0441CE
	D510	RH-DX0131CEZZ*	Diode, DX0131CE
	D602	VHD1SS244//-1*	Diode, 1SS244
	D603	VHEZJ27B+++1E*	Zener Diode, 27V
	D604	VHD1N4148//-1*	Diode, 1N4148
	D605	VHD1N4148//-1*	Diode, 1N4148
	D606	RH-DX0131CEZZ*	Diode, DX0131CE
	D607	VHD1N4148//-1*	Diode, 1N4148
	D608	VHEZJ6R2A++1E*	Zener Diode, 6.2V
⚠	D701	RH-DX0476CEZZ	Diode, DX0476CE
	D706	RH-DX0066GEZZ*	Diode, DX0066GE
	D707	RH-DX0066GEZZ*	Diode, DX0066GE
	D709	RH-DX0066GEZZ*	Diode, DX0066GE
	D715	VHEZJ5R6B++1E*	Zener Diode, 5.6V
	D721	RH-DX0066GEZZ*	Diode, DX0066GE
	D722	VHEZJ27D+++1E*	Zener Diode, 27V
	D723	VHEZJ12B+++1E*	Zener Diode, 12V
	D732	VHEZJ8R2A++1E*	Zener Diode, 8.2V
	D736	VHEZJ36C+++1E*	Zener Diode, 36V
	D750	VHEZJ5R1A++1E*	Zener Diode, 5.1V
	D751	RH-DXA044WJZZ	Diode, DXA044WJ
	D752	RH-DX0247CEZZ	Diode, DX0247CE
	D754	VHEZJ5R1C++1E*	Zener Diode, 5.1V
	D757	VHEZJ8R2B++1E*	Zener Diode, 8.2V
	D762	VHD1N4148//-1*	Diode, 1N4148
	D763	VHD1N4148//-1*	Diode, 1N4148
	D764	VHD1N4148//-1*	Diode, 1N4148
	D801	VHD1N4148//-1*	Diode, 1N4148
	D806	RH-EX1393CEZZ*	Zener Diode, 5.1V
	D807	VHD1SS390++-1*	Diode, 1SS390
	D808	VHD1SS390++-1*	Diode, 1SS390
	D809	VHD1SS390++-1*	Diode, 1SS390
	D1001	RH-PX0013PEZZ	LED
	D1002	VHEZJ11A+++1E*	Zener Diode, 11V
	D1005	VHD1N4148//-1*	Diode, 1N4148
	D1006	RH-EX1393CEZZ*	Zener Diode, 5.1V
	D1008	VHD1N4148//-1*	Diode, 1N4148
	D1009	RH-EX1393CEZZ*	Zener Diode, 5.1V
	D1081	RH-DX0066GEZZ*	Diode, DX0066GE
	D1082	VHD1N4148//-1*	Diode, 1N4148
	D1800	VHD1N4148//-1*	Diode, 1N4148
	NR701	RH-HXA013WJZZ+	NTC Thermistor

NO.	PARTS CODE	DESCRIPTION
[3] MAIN UNIT		
VA701	RH-VXA182WJZZ	Varistor
PR701	RMPTPA016WJZZ	PTC Thermistor (Positive resistor)
X801	RCRSAA019WJZZ	Crystal
L203	VP-DF270K0000*	Peaking Coil, 27mH
L205	VP-XF2R2K0000*	Peaking Coil, 2.2mH
L602	RCILP0223CEZZ+	Coil
L701	RCILFA187WJZZ	Coil
L751	RCILP0179CEZZ+	Coil
L802	VP-CF100K0000*	Peaking Coil, 10mH
L803	VP-CF220K0000*	Peaking Coil, 22mH
L804	VP-CF100K0000*	Peaking Coil, 10mH
L805	VP-CF100K0000*	Peaking Coil, 10mH
L807	VP-DF100K0000*	Peaking Coil, 10mH
SF201	RFILC0442CEZZ	SAW Filter
T602	RTRNFA132WJZZ	H-Volt Transformer
T603	RTRNZA058WJZZ	Transformer
T702	RTRNWA193WJZZ	Transformer
C202	VCEA0A1AW108M+	Capacitor, 1000µF 10V Electrolytic
C203	VCKYCY1HF103Z*	Capacitor, 0.01µF 50V Ceramic
C204	VCEA0A1HW105M+	Capacitor, 1000µF 10V Electrolytic
C206	VCEA0A1HW106M+	Capacitor, 10µF 50V Electrolytic
C301	VCEA0A1EW476M+	Capacitor, 47µF 25V Electrolytic
C304	VCEA0A1HW224M+	Capacitor, 0.22µF 50V Electrolytic
C305	VCKYCY1HB682K*	Capacitor, 6800pF 50V Ceramic
C306	VCEA0A1CW226M+	Capacitor, 22µF 16V Electrolytic
C308	VCEA0A1EW477M+	Capacitor, 470µF 25V Electrolytic
C309	VCFYFA1HA474J+	apacitor, 0.47µF 50V Plastic
C314	VCEA0A1HW475M+	Capacitor, 4.7µF 50V Electrolytic
C370	VCEA0A1CW106M+	Capacitor, 10µF 16V Electrolytic
C372	VCEA0A1HW225M+	Capacitor, 2.2µF 50V Electrolytic
C391	VCKYPA2HB102K+	Capacitor, 1000pF 500V Ceramic
C393	VCEA0A1EW108M+	Capacitor, 1000µF 25V Electrolytic
C395	VCE9GA1HW225M+	Capacitor, 2.2µF 50V Electrolytic (Non Polar) (for 21F-PT220 only)
C451	VCEA0A1CW477M+	Capacitor, 470µF 16V Electrolytic
C501	VCFYFA1HA104J+	Capacitor, 0.1µF 50V Plastic
C505	VCEA0A1HW107M+	Capacitor, 100µF 50V Electrolytic
C508	VCFYAA2AA224J+	Capacitor, 0.22µF 100V Plastic
C511	VCEA0A1VW477M+	Capacitor, 470µF 35V Electrolytic
C512	VCKYPA2HB102K+	Capacitor, 1000pF 500V Ceramic
C513	RC-EZA332WJZZ+	Capacitor, 1000µF 35V Electrolytic
C515	VCEACA1HC335J+	Capacitor, 3.3µF 50V Electrolytic
C601	VCQYTA1HM563J+	Capacitor, 0.056µF 50V Plastic
C602	VCEA0A1HW475M+	Capacitor, 4.7µF 50V Electrolytic
C604	VCEA0A2EW336M+	Capacitor, 33µF 250V Electrolytic
C606	VCKYPA2HB102K+	Capacitor, 1000pF 500V Ceramic
C607	VCFPVC3ZA852H	Capacitor, 8500pF 1.8kV Metalized Polypro Film
C608	VCQYTA2AA103K+	Capacitor, 0.01µF 100V Plastic
C610	VCEA0A1EW227M+	Capacitor, 220µF 25V Electrolytic
C611	VCFPVC2EC334J	Capacitor, 0.33µF 250V Plastic
C612	VCKYPA1HB561K+	Capacitor, 560pF 50V Ceramic
C650	VCKYPA2HB101K+	Capacitor, 100pF 500V Ceramic
C701	RC-FZ031SCEZZ	Capacitor, 0.1µF 275V Plastic
C702	RC-KZ0029CEZZ+	Capacitor, 0.01µF 250V Ceramic
C703	RC-KZ0029CEZZ+	Capacitor, 0.01µF 250V Ceramic
C704	RC-KZ0029CEZZ+	Capacitor, 0.01µF 250V Ceramic
C705	RC-EZA097WJZZ	Capacitor, 220µF 400V Electrolytic
C706	VCFYFA1HA105J+	Capacitor, 1µF 50V Plastic
C708	VCKYPA1HB221K+	Capacitor, 220pF 50V Ceramic
C709	VCQYTA1HM103J+	Capacitor, 0.01µF 50V Plastic
C710	VCKYPA1HF103Z+	Capacitor, 0.01µF 50V Ceramic
C711	VCKYPA1HB472K+	Capacitor, 4700pF 50V Ceramic
C713	RC-KZ0102GEZZ	Capacitor, 680pF 250V Ceramic
C719	VCEA0A1HW476M+	Capacitor, 47µF 50V Electrolytic
C743	VCKYPH3DB561K	Capacitor, 560pF 2kV Ceramic
C750	VCKYPA2HB102K+	Capacitor, 1000pF 500V Ceramic
C752	VCKYPH3DB561K	Capacitor, 560F 2kV Ceramic
C753	RC-EZA523WJZZ	Capacitor, 100µF 160V Electrolytic
C754	RC-EZA522WJZZ	Capacitor, 33µF 160V Electrolytic
C755	VCEA0A1CW226M+	Capacitor, 22µF 16V Electrolytic
C756	VCEA0A1EW228M	Capacitor, 2200µF 25V Electrolytic
C757	VCEA0A1CW226M+	Capacitor, 22µF 16V Electrolytic
C758	VCEA0A1CW476M+	Capacitor, 47µF 16V Electrolytic
C759	VCKYCY1HB104K*	Capacitor, 0.1µF 50V Ceramic
C760	VCEA0A1CW476M+	Capacitor, 47µF 16V Electrolytic
C761	VCEA0A1CW226M+	Capacitor, 22µF 16V Electrolytic
C762	VCEA0A1CW476M+	Capacitor, 47µF 16V Electrolytic
C764	VCEA0A1CW476M+	Capacitor, 47µF 16V Electrolytic
C765	VCKYCY1HB104K*	Capacitor, 0.1µF 50V Ceramic
C766	VCKYCY1HB104K*	Capacitor, 0.1µF 50V Ceramic
C784	RC-KZ1018CEZZ+	Capacitor, 1000pF 2kV Plastic
C803	VCKYCY1HB104K*	Capacitor, 0.1µF 50V Ceramic

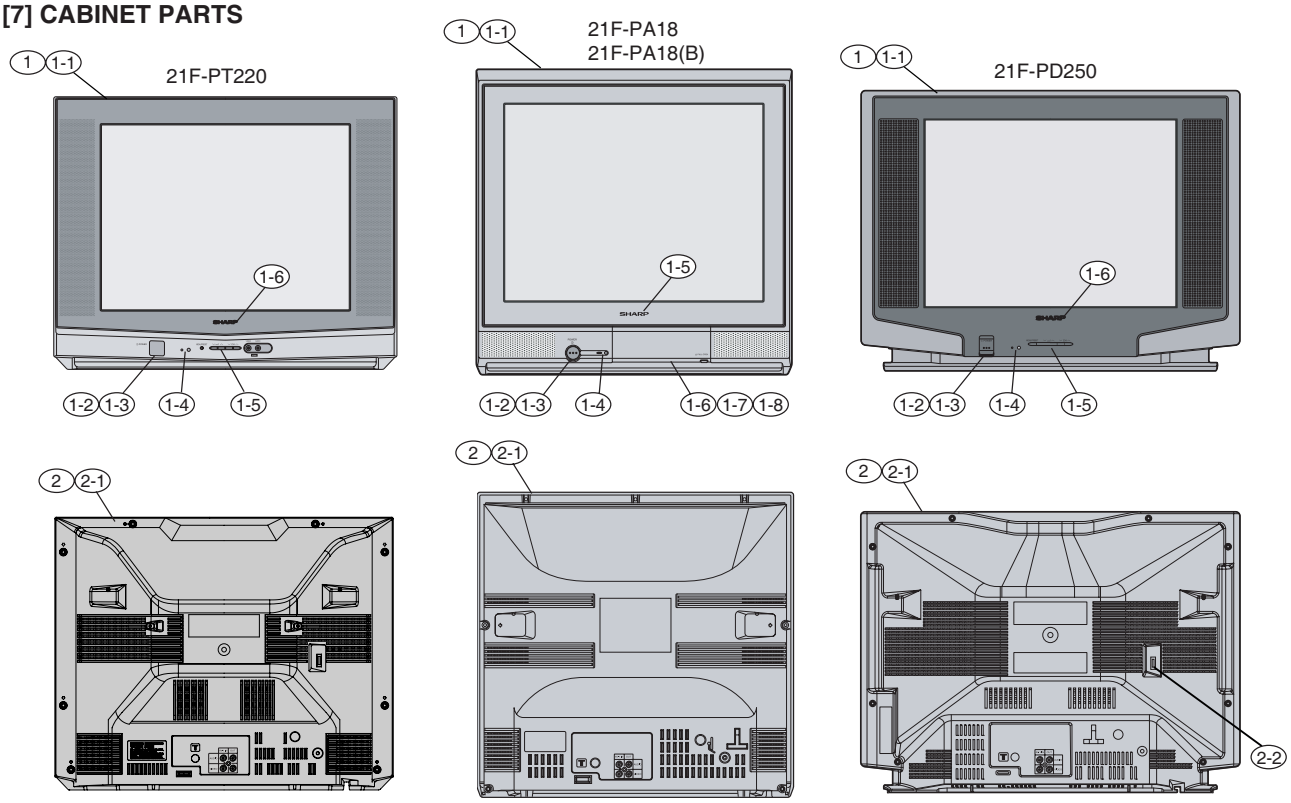
NO.	PARTS CODE	DESCRIPTION
[3] MAIN UNIT		
C804	VCEA0A1HW474M+	Capacitor, 0.47μF 50V Electrolytic
C805	VCKYCY1HB153K*	Capacitor, 0.015μF 50V Ceramic
C806	VCEA0A1CW476M+	Capacitor, 47μF 16V Electrolytic
C807	VCKYCY1HF103Z*	Capacitor, 0.01μF 16V Ceramic
C810	VCKYCY1HF103Z*	Capacitor, 0.01μF 16V Ceramic
C811	VCFYFA1HA224J+	Capacitor, 0.22μF 50V Plastic
C814	VCKYCY1HB153K*	Capacitor, 0.015μF 50V Ceramic
C815	VCCCCY1HH470J*	Capacitor, 47pF 50V Ceramic
C816	VCEA0A1HW474M+	Capacitor, 0.47μF 50V Electrolytic
C817	VCFYFA1HA224J+	Capacitor, 0.22μF 50V Plastic
C818	VCEA0A1CW476M+	Capacitor, 47μF 16V Electrolytic
C819	VCKYCY1HB103K*	Capacitor, 0.01μF 50V Ceramic
C820	VCKYCY1HF103Z*	Capacitor, 0.01μF 16V Ceramic
C821	VCKYCY1HF103Z*	Capacitor, 0.01μF 16V Ceramic (for 21F-PD250 / 21F-PA18 / 21F-PA18(B) only)
C822	VCKYCY1HB104K*	Capacitor, 0.1μF 50V Ceramic
C823	VCKYCY1HB104K*	Capacitor, 0.1μF 50V Ceramic
C824	VCKYCY1CF105Z*	Capacitor, 1μF 16V Ceramic (for 21F-PT220 only)
C825	VCEA0A1HW474M+	Capacitor, 0.47μF 50V Electrolytic
C826	VCEA0A1HW335M+	Capacitor, 3.3μF 50V Electrolytic
C827	VCKYCY1HF103Z*	Capacitor, 0.01μF 16V Ceramic (for 21F-PD250 / 21F-PA18 / 21F-PA18(B) only)
C828	VCEA0A1HW474M+	Capacitor, 0.47μF 50V Electrolytic
C830	VCKYCY1HB103K*	Capacitor, 0.01μF 50V Ceramic
C831	VCEA0A1CW476M+	Capacitor, 47μF 16V Electrolytic
C833	VCEA0A1HW105M+	Capacitor, 1μF 50V Electrolytic
C834	VCKYCY1HB104K*	Capacitor, 0.1μF 50V Ceramic
C836	VCKYCY1HB222K*	Capacitor, 2200pF 50V Ceramic
C837	VCFYFA1HA104J+	Capacitor, 0.1μF 50V Plastic
C838	VCEA0A1CW477M+	Capacitor, 470μF 16V Electrolytic
C839	VCKYCY1HB103K*	Capacitor, 0.01μF 50V Ceramic
C840	VCKYCY1CF105Z*	Capacitor, 1μF 16V Ceramic
C841	VCKYCY1CB393K*	Capacitor, 0.039μF 16V Ceramic
C843	VCEA9M1HW475M+	Capacitor, 4.7μF 50V Electrolytic
C845	VCEA9M1HW475M+	Capacitor, 4.7μF 50V Electrolytic
C1001	VCEA0A1AW107M+	Capacitor, 100μF 10V Electrolytic
C1002	VCCCCY1HH101J*	Capacitor, 100pF 50V Ceramic
C1003	VCEA9M1CW106M+	Capacitor, 10μF 16V Electrolytic
C1004	VCKYCY1CF474Z*	Capacitor, 0.47μF 16V Ceramic
C1007	VCEA0A1CW476M+	Capacitor, 47μF 16V Electrolytic
C1008	VCKYCY1HF103Z*	Capacitor, 0.01μF 50V Ceramic
C1013	VCKYCY1HF103Z*	Capacitor, 0.01μF 50V Ceramic
C1016	VCKYCY1EF104Z*	Capacitor, 0.1μF 25V Ceramic
C1081	VCFYFA1HA104J+	Capacitor, 0.1μF 50V Plastic
C1800	VCEA0A1CW336M+	Capacitor, 33μF 16V Electrolytic
C1841	VCEA0A1CW476M+	Capacitor, 47μF 16V Electrolytic
C1842	VCKYCY1HB103K*	Capacitor, 0.01μF 50V Ceramic
C1860	VCCCCY1HH220J*	Capacitor, 22pF 50V Ceramic
RJ8	VRS-CY1JF000J*	Resistor, 0 1/16W Metal Oxide
RJ9	VRS-CY1JF000J*	Resistor, 0 1/16W Metal Oxide
RJ13	VRS-CY1JF000J*	Resistor, 0 1/16W Metal Oxide (for 21F-PT220 only)
RJ15	VRS-CY1JF000J*	Resistor, 0 1/16W Metal Oxide
RJ16	VRS-CY1JF000J*	Resistor, 0 1/16W Metal Oxide
RJ19	VRS-CY1JF000J*	Resistor, 0 1/16W Metal Oxide
RJ43	VRS-CY1JF000J*	Resistor, 0 1/16W Metal Oxide (for 21F-PT220 only)
RJ45	VRS-CY1JF000J*	Resistor, 0 1/16W Metal Oxide
RJ46	VRS-CY1JF000J*	Resistor, 0 1/16W Metal Oxide
RJ49	VRS-CY1JF000J*	Resistor, 0 1/16W Metal Oxide
RJ50	VRS-CY1JF000J*	Resistor, 0 1/16W Metal Oxide
RJ57	VRS-CY1JF000J*	Resistor, 0 1/16W Metal Oxide
RJ62	VRS-CY1JF000J*	Resistor, 0 1/16W Metal Oxide
RJ67	VRS-CY1JF000J*	Resistor, 0 1/16W Metal Oxide
RJ68	VRS-CY1JF000J*	Resistor, 0 1/16W Metal Oxide
RJ69	VRS-CY1JF000J*	Resistor, 0 1/16W Metal Oxide
RJ71	VRS-CY1JF000J*	Resistor, 0 1/16W Metal Oxide
RJ72	VRS-CY1JF000J*	Resistor, 0 1/16W Metal Oxide
RJ73	VRS-CY1JF000J*	Resistor, 0 1/16W Metal Oxide
RJ74	VRS-CY1JF000J*	Resistor, 0 1/16W Metal Oxide
RJ75	VRS-CY1JF000J*	Resistor, 0 1/16W Metal Oxide
RJ76	VRS-CY1JF000J*	Resistor, 0 1/16W Metal Oxide
R201	VRS-CY1JF101J*	Resistor, 100 1/16W Metal Oxide
R202	VRS-CY1JF101J*	Resistor, 100 1/16W Metal Oxide
R204	VRS-CY1JF332J*	Resistor, 3.3k 1/16W Metal Oxide
R216	VRS-VV3LB393J	Resistor, 39k 3W Metal Oxide
R301	VRD-RA2BE272J*	Resistor, 2.7k 1/8W Carbon
R303	VRS-CY1JF473J*	Resistor, 47k 1/16W Metal Oxide
R304	VRD-RA2BE223J*	Resistor, 22k 1/8W Carbon
R305	VRS-CY1JF274J*	Resistor, 270k 1/16W Metal Oxide
R314	VRD-RA2BE822J*	Resistor, 8.2k 1/8W Carbon
R315	VRS-CY1JF332J*	Resistor, 3.3k 1/16W Metal Oxide
R325	VRD-RM2HD1R0J*	Resistor, 1 1/2W Carbon
R366	VRS-CY1JF332J*	Resistor, 3.3k 1/16W Metal Oxide
R384	VRS-CY1JF332J*	Resistor, 3.3k 1/16W Metal Oxide (for 21F-PT220 only)

NO.	PARTS CODE	DESCRIPTION
[3] MAIN UNIT		
R391	VRN-VV3ABR22J	Resistor, 0.22 1W Metal Film
R432	VRS-CY1JF750J*	Resistor, 75 1/16W Metal Oxide (for 21F-PT220 only)
R458	VRS-CY1JF103J*	Resistor, 10k 1/16W Metal Oxide
R459	VRD-RA2EE750J*	Resistor, 75 1/4 Carbon
R461	VRS-CY1JF750J*	Resistor, 75 1/16W Metal Oxide
R462	VRS-CY1JF101J*	Resistor, 100 1/16W Metal Oxide
R503	VRN-VV3DB1R0J	Resistor, 1 2W Metal Film
R504	VRS-CY1JF222J*	Resistor, 2.2k 1/16W Metal Oxide
R506	VRS-VV3AB331J	Resistor, 330 1W Metal Film
R507	VRD-RM2HD1R0J*	Resistor, 1 1/2W Carbon
R513	VRD-RM2HD333J*	Resistor, 33k 1/2W Carbon
R514	VRD-RM2HD682J*	Resistor, 6.8k 1/2W Carbon
R520	VRS-CY1JF682J*	Resistor, 6.8k 1/16W Metal Oxide
R523	VRS-CY1JF103J*	Resistor, 10k 1/16W Metal Oxide
R524	VRS-CY1JF103J*	Resistor, 10k 1/16W Metal Oxide
R526	VRS-CY1JF101J*	Resistor, 100 1/16W Metal Oxide
R602	VRD-RA2BE393J*	Resistor, 39k 1/8W Carbon
R603	VRD-RA2BE393J*	Resistor, 39k 1/8W Carbon
R604	VRD-RA2BE473J*	Resistor, 47k 1/8W Carbon
R605	VRD-RM2HD104J*	Resistor, 100k 1/2W Carbon
R606	VRN-VV3LBR22J	Resistor, 0.22 3W Metal Film
R607	VRD-RM2HD270J*	Resistor, 27 1/2W Carbon
⚠ R608	VRD-RM2HD102J*	Resistor, 1k 1/2W Carbon
R609	VRD-RM2HD270J*	Resistor, 27 1/2W Carbon
⚠ R611	VRN-VV3AB1R8J	Resistor, 1.8 1W Metal Film
⚠ R612	VRD-RM2HD270J*	Resistor, 27 1/2W Carbon
R614	VRS-CY1JF154J*	Resistor, 150k 1/16W Metal Oxide
R615	VRS-CY1JF102J*	Resistor, 1k 1/16W Metal Oxide
R616	VRS-CY1JF102J*	Resistor, 1k 1/16W Metal Oxide
R617	VRS-CY1JF123J*	Resistor, 12k 1/16W Metal Oxide
R618	VRS-CY1JF103J*	Resistor, 10k 1/16W Metal Oxide
R621	VRN-SV2HC1R0J	Resistor, 1 1/2W Metal Oxide
R622	VRS-VV3DB682J	Resistor, 6.8k 2W Metal Oxide
R623	VRS-CY1JF333J*	Resistor, 33k 1/16W Metal Oxide
R624	VRS-CY1JF103J*	Resistor, 10k 1/16W Metal Oxide
R625	VRD-RM2HD184J*	Resistor, 180k 1/2W Carbon
R626	VRS-CY1JF472J*	Resistor, 4.7k 1/16W Metal Oxide
R627	VRD-RA2BE153J*	Resistor, 15k 1/8W Carbon
R631	VRS-VV3LB391J	Resistor, 390 3W Metal Oxide
R637	VRD-RA2BE331J*	Resistor, 330 1/8W Carbon
R638	VRD-RA2BE181J*	Resistor, 180 1/8W Carbon
R639	VRD-RM2HD271J*	Resistor, 270 1/2W Carbon
R661	VRD-RA2BE102J*	Resistor, 1k 1/8W Carbon
R662	VRS-CY1JF103J*	Resistor, 10k 1/16W Metal Oxide
R702	VRS-VV3DB124J	Resistor, 120k 2W Metal Film
R704	VRD-RA2BE221J*	Resistor, 220 1/8W Carbon
R705	VRN-VV3DBR82J	Resistor, 0.82 2W Metal Film
R706	VRN-VV3DBR22J	Resistor, 0.22 2W Metal Film
R710	VRD-RM2HD220J*	Resistor, 22 1/2W Carbon
R710	VRD-RM2HD1R0J*	Resistor, 1 1/2W Carbon
R711	VRD-RA2EE472J*	Resistor, 4.7k 1/4W Carbon
R713	VRD-RA2BE222J*	Resistor, 2.2k 1/8W Carbon
R722	VRD-RA2BE153J*	Resistor, 15k 1/8W Carbon
R725	VRD-RM2HD821J*	Resistor, 820 1/2W Carbon
R726	VRN-SV2HCR47J	Resistor, 0.47 1/2W Metal Oxide
R733	VRD-RA2BE273J*	Resistor, 27k 1/8W Carbon
R750	VRS-VV3DB100J	Resistor, 10 2W Metal Oxide
⚠ R751	VRC-UA2HG825K*	Resistor, 8.2M 1/2W Solid Resistor
⚠ R752	VRC-UA2HG825K*	Resistor, 8.2M 1/2W Solid Resistor
R753	VRD-RM2HD124J*	Resistor, 120k 1/2W Carbon
R754	VRS-VV3DB820J	Resistor, 82 2W Metal Oxide
R755	VRS-VV3LB220J	Resistor, 22 3W Metal Oxide
R757	VRN-VV3AB4R7J	Resistor, 4.7 1W Metal Film
R762	VRS-CY1JF102J*	Resistor, 1k 1/16W Metal Oxide
R763	VRS-CY1JF102J*	Resistor, 1k 1/16W Metal Oxide
R764	VRS-CY1JF561J*	Resistor, 560 1/16W Metal Oxide
R772	VRS-CY1JF101J*	Resistor, 100 1/16W Metal Oxide
R774	VRS-CY1JF101J*	Resistor, 100 1/16W Metal Oxide
R802	VRS-CY1JF473J	Resistor, 47k 1/16W Metal Oxide
R805	VRD-RA2BE101J*	Resistor, 100 1/8W Carbon
R806	VRS-CY1JF822J*	Resistor, 8.2k 1/16W Metal Oxide
R807	VRS-CY1JF124J*	Resistor, 120k 1/16W Metal Oxide
R808	VRS-CY1JF101J*	Resistor, 100 1/16W Metal Oxide
R809	VRD-RA2BE123J*	Resistor, 120k 1/8W Carbon
R810	VRS-CY1JF103J*	Resistor, 1k 1/16W Metal Oxide
R811	VRS-CY1JF103J*	Resistor, 1k 1/16W Metal Oxide
R812	VRS-CY1JF822J*	Resistor, 8.2k 1/16W Metal Oxide
R814	VRD-RA2BE101J*	Resistor, 100 1/8W Carbon
R818	VRS-CY1JF220J*	Resistor, 22 1/16W Metal Oxide
R819	VRS-CY1JF473J*	Resistor, 47k 1/16W Metal Oxide
R823	VRD-RA2BE101J*	Resistor, 100 1/8W Carbon

NO.	PARTS CODE	DESCRIPTION
[3] MAIN UNIT		
R825	VRS-CY1JF473J*	Resistor, 47k 1/16W Metal Oxide
R827	VRD-RM2HD151J*	Resistor,150 1/2W Carbon
R828	VRD-RA2BE223J*	Resistor, 22k 1/8W Carbon
R829	VRS-CY1JF473J*	Resistor, 47k 1/16W Metal Oxide
R832	VRS-CY1JF222J*	Resistor, 2.2k 1/16W Metal Oxide
R833	VRS-CY1JF222J*	Resistor, 2.2k 1/16W Metal Oxide
R834	VRS-CY1JF222J*	Resistor, 2.2k 1/16W Metal Oxide
R835	VRS-CY1JF181J*	Resistor, 180 1/16W Metal Oxide
R836	VRS-CY1JF181J*	Resistor, 180 1/16W Metal Oxide
R837	VRS-CY1JF181J*	Resistor, 180 1/16W Metal Oxide
R838	VRS-CY1JF472J*	Resistor, 4.7k 1/16W Metal Oxide
R840	VRS-CY1JF332J*	Resistor, 3.3k 1/16W Metal Oxide
R841	VRS-CY1JF333J*	Resistor, 3.3k 1/16W Metal Oxide
R1003	VRS-CY1JF102J	Resistor, 1k 1/16W Metal Oxide
R1004	VRD-RA2BE101J*	Resistor, 100 1/8W Carbon
R1008	VRD-RA2BE101J*	Resistor, 100 1/8W Carbon
R1010	VRS-CY1JF104J*	Resistor, 100k 1/16W Metal Oxide
R1011	VRS-CY1JF183J*	Resistor, 18k 1/16W Metal Oxide
R1012	VRS-CY1JF183J*	Resistor, 18k 1/16W Metal Oxide
R1013	VRS-CY1JF101J*	Resistor, 100 1/16W Metal Oxide
R1014	VRD-RA2BE101J*	Resistor, 100 1/8W Carbon
R1015	VRS-CY1JF101J*	Resistor, 100 1/16W Metal Oxide
R1016	VRD-RA2BE332J*	Resistor, 3.3k 1/8W Carbon
R1017	VRD-RA2BE101J*	Resistor, 100 1/8W Carbon
R1019	VRD-RA2BE101J*	Resistor, 100 1/8W Carbon
R1020	VRS-CY1JF183J*	Resistor, 18k 1/16W Metal Oxide
R1021	VRS-CY1JF822J*	Resistor, 8.2k 1/16W Metal Oxide
R1022	VRS-CY1JF183J*	Resistor, 18k 1/16W Metal Oxide
R1024	VRS-CY1JF101J*	Resistor, 100 1/16W Metal Oxide
R1025	VRS-CY1JF103J*	Resistor, 10k 1/16W Metal Oxide
R1026	VRS-CY1JF183J*	Resistor, 18k 1/16W Metal Oxide
R1027	VRS-CY1JF104J*	Resistor, 100k 1/16W Metal Oxide
R1028	VRD-RA2BE391J*	Resistor, 390 1/8W Carbon
R1030	VRD-RA2BE103J*	Resistor, 10k 1/8W Carbon
R1031	VRS-CY1JF101J*	Resistor, 100 1/16W Metal Oxide
R1032	VRS-CY1JF103J*	Resistor, 10k 1/16W Metal Oxide
R1040	VRS-CY1JF332J*	Resistor, 3.3k 1/16W Metal Oxide
R1041	VRS-CY1JF332J*	Resistor, 3.3k 1/16W Metal Oxide
R1042	VRS-CY1JF101J*	Resistor, 100 1/16W Metal Oxide
R1043	VCKYCY1HB103K*	Capacitor, 0.01μF 50V Ceramic
R1044	VRS-CY1JF104J*	Resistor, 100k 1/16W Metal Oxide
R1046	VRD-RA2BE102J*	Resistor, 1k 1/8W Carbon
R1056	VRS-CY1JF332J*	Resistor, 3.3k 1/16W Metal Oxide
R1074	VRS-CY1JF103J*	Resistor, 10k 1/16W Metal Oxide
R1078	VRS-CY1JF332J*	Resistor, 3.3k 1/16W Metal Oxide
R1079	VRS-CY1JF332J*	Resistor, 3.3k 1/16W Metal Oxide
R1087	VRS-CY1JF102J*	Resistor, 1k 1/16W Metal Oxide
R1092	VRS-CY1JF000J*	Resistor, 0 1/16W Metal Oxide
R1801	VRS-CY1JF473J*	Resistor, 47k 1/16W Metal Oxide
R1802	VRS-CY1JF473J*	Resistor, 47k 1/16W Metal Oxide
R1803	VRS-CY1JF473J*	Resistor, 47k 1/16W Metal Oxide
R1804	VRD-RA2BE222J*	Resistor, 2.2k 1/8W Carbon
R1805	VRS-CY1JF124J*	Resistor, 120k 1/16W Metal Oxide
S701	QSW-P0612CEZZ	Switch, POWER
S1001	QSW-KA019WJZZ+	Switch, CH UP
S1002	QSW-KA019WJZZ+	Switch, CH DOWN
S1003	QSW-KA019WJZZ+	Switch, VOL UP
S1004	QSW-KA019WJZZ+	Switch, VOL DOWN
S1005	QSW-KA019WJZZ+	Switch, MENU/PRESET
⚠ F701	QFS-C3225CEZZ	Fuse, 3.15A 250V
FH701	QFSHD1013CEZZ+	Fuse Holder
FH702	QFSHD1014CEZZ+	Fuse Holder
J1	VW7UGB4-040KK	Jumper Wire (Yellow / 40mm)
J2	VW7UGB9-040KK	Jumper Wire (White / 40mm)
J402	QJAKE0211CE04	Jack (for 21F-PT220 only)
J403	QJAKE0211CE09	Jack (for 21F-PT220 only)
J405	QJAKH0044AJZZ	Jack (Rear AV)
P301	QPLGN0241CEZZ	Plug, 2 Pin (S) (for 21F-PA18 / 21F-PA18(B) only)
P302	QPLGN0461CEZZ	Plug, 4 Pin (S) (for 21F-PT220 / 21F-PD250 only)
P601	QPLGN0660CEZZ	Plug, 6 Pin (F)
P602	LHLDW1104PEZZ	Holders, H-Wire
P701	QPLGN0260CEZZ	Plug, 2 Pin
P702	QPLGN0269GEZZ	Plug, 2 Pin (H)
P1001	LHLDW1105PEZZ	Holders, K-Wire
P1002	QPLGN0561CEZZ	Plug, 5 Pin (BC)
RMC1001	RRMCUA022WJZZ	Remote Control Receiver
RDA301	PRDARA420WJFW	Heat Sink for IC301
RDA501	PRDARA120WJFW	Heat Sink for IC501
RDA602	PRDARA361WJFW	Heat Sink for Q602
RDA701	PRDARA119WJFW	Heat Sink for IC701
TP801	QLUGP0111GEFW	Lug Terminals

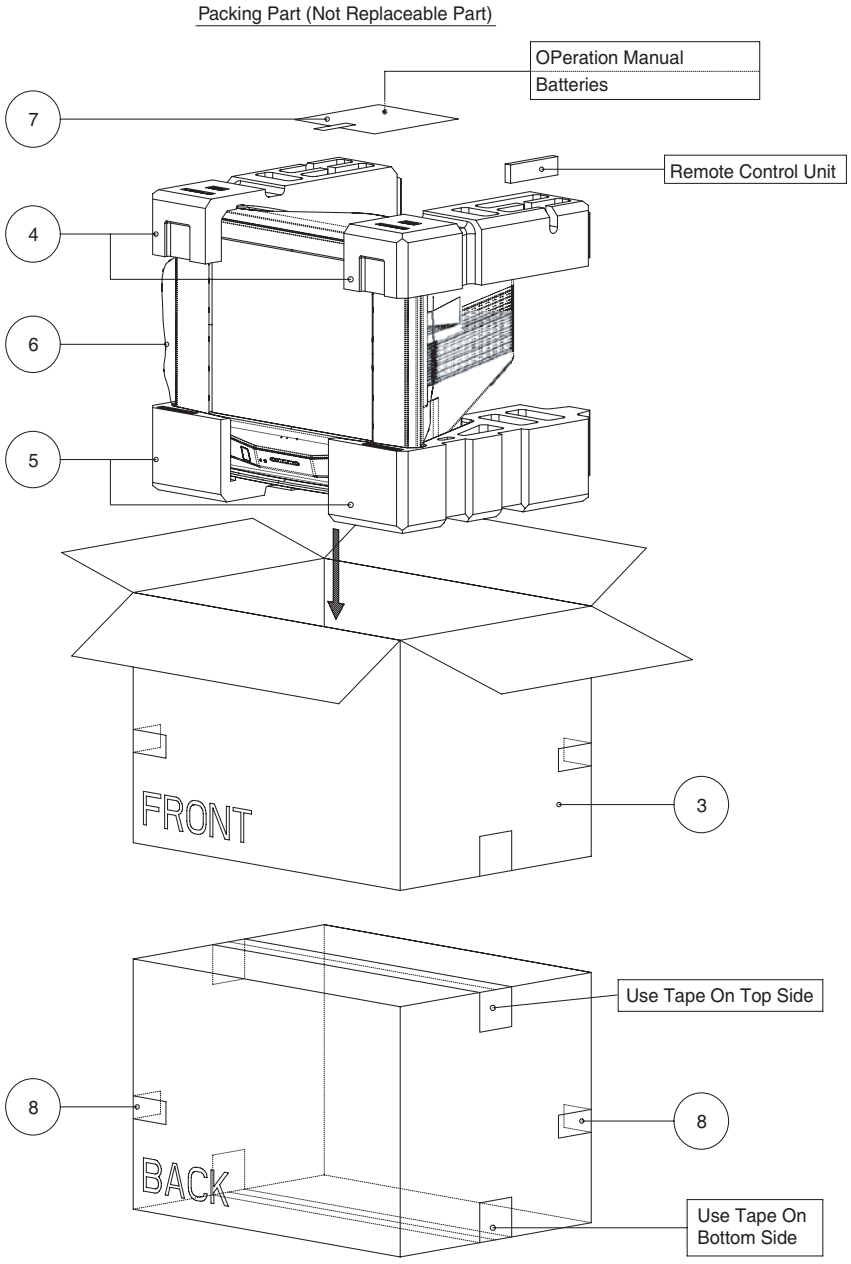
NO.	PARTS CODE	DESCRIPTION
[4] CRT UNIT		
Q853	VSBF422++++-2+	Transistor, BF422
Q854	VSBF422++++-2+	Transistor, BF422
Q855	VSBF422++++-2+	Transistor, BF422
Q894	VS2SA1530AR-1*	Transistor, 2SA1530AR
D859	VHD1N4148//-1*	Diode, 1N4148
D895	VHD1N4148//-1*	Diode, 1N4148
D896	VHEZJ5R6C++1E*	Zener Diode, 5.6V
D898	VHD1N4148//-1*	Diode, 1N4148
L851	VP-MK820K0000+	Peaking Coil, 82mH
C851	VCKYPA1HB561K+	Capacitor, 560pF 50V Ceramic
C852	VCKYPA1HB271K+	Capacitor, 270pF 50V Ceramic
C853	VCKYPA1HB271K+	Capacitor, 270pF 50V Ceramic
C880	RC-KZ0016CEZZ	Capacitor, 0.01µF 1.5kV Ceramic
C893	VCEA0A1CW336M+	Capacitor, 33µF 16V Electrolytic
R849	VRS-CY1JF331J*	Resistor, 330 1/16W Metal Oxide
R850	VRS-CY1JF470J*	Resistor, 47 1/16W Metal Oxide
R851	VRS-CY1JF470J*	Resistor, 47 1/16W Metal Oxide
R852	VRS-CY1JF470J*	Resistor, 47 1/16W Metal Oxide
R854	VRS-CY1JF331J*	Resistor, 330 1/16W Metal Oxide
R855	VRS-CY1JF331J*	Resistor,330 1/16W Metal Oxide
⚠ R859	VRS-VV3DB153J	Resistor, 15k 2W Metal Oxide
⚠ R861	VRS-VV3DB153J	Resistor, 15k 2W Metal Oxide
⚠ R863	VRS-VV3DB153J	Resistor, 15k 2W Metal Oxide
R864	VRD-RA2BE470J*	Resistor, 47 1/8W Carbon
R876	VRS-CY1JF121J*	Resistor, 120 1/16W Metal Oxide
R877	VRS-CY1JF121J*	Resistor, 120 1/16W Metal Oxide
R878	VRS-CY1JF121J*	Resistor, 120 1/16W Metal Oxide
R880	VRD-RM2HD332J*	Resistor, 3.3k 1/2W Carbon
R881	VRD-RM2HD332J*	Resistor, 3.3k 1/2W Carbon
R882	VRD-RM2HD332J*	Resistor, 3.3k 1/2 Carbon
R891	VRS-CY1JF152J*	Resistor, 1.5k 1/16W Metal Oxide
R892	VRS-CY1JF391J	Resistor, 390 1/16W Metal Oxide
R894	VRS-CY1JF152J*	Resistor, 1.5k 1/16W Metal Oxide
R895	VRD-RA2BE561J*	Resistor, 560 1/8W Carbon
P860	LHLDW1104PEZZ	Holders, H-Wire
P880	LHLDW1105PEZZ	Holders, K-Wire
SC851	QSOCVA023WJZZ	CRT Socket, 12 Pin
[5] MISCELLANEOUS PARTS		
	QACCZA085WJPZ	AC Cord
	VSP0509PA01WA	Speaker
	QCNW-A788WJPZ	K-Wire
	QCNW-A230WJZZ	H-Wire
	QCNW-2206PEZZ	Speaker Wire (for 21F-PA18 / 21F-PA18(B) only)
	QCNW-E681WJPZ	Speaker Wire (for 21F-PT220 / 21F-PD250 only)
[6] SUPPLIED ACCESSORIES		
	RRMCGA372WJSA	Remote Control Unit
	UBATU0247AJZZ	Battery
	TINS-D166WJN1	Operation Manual

[7] CABINET PARTS



NO.	PARTS CODE	DESCRIPTION
CABINET PARTS (21F-PT220)		
1	CCABAB883WEA0	Front Cabinet Assembly
1-1	*Not Available*	Front Cabinet
1-2	JBTN-A673WJSA	Power Button
1-3	MSPRCA067WJFW	Spring
1-4	GCOVAC321WJSA	R/C & LED Cover
1-5	JBTN-A674WJSA	Control Button
1-6	HBDGB0001KJSC	Sharp Badge
2	CCABBB176WEA0	Rear Cabinet Assembly
2-1	*Not Available*	Rear Cabinet
CABINET PARTS (21F-PA18 / 21F-PA18(B))		
1	CCABAB876WEA0	Front Cabinet Assembly (for 21F-PA18 only)
	CCABAB877WEA0	Front Cabinet Assembly (for 21F-PA18(B) only)
1-1	*Not Available*	Front Cabinet
1-2	JBTN-A455WJSA	Power Button
1-3	MSPRC0005PEFW	Power Button Spring
1-4	COVAB226WJSA	R/C & LED Cover
1-5	HBDGB0001KJSC	Sharp Badge
1-6	GDORFA152WJSA	Door
1-7	MSPRPA025WJFW	Door Spring
1-8	HINDPB780WJZZ	Indication Plate
2	CCABBA215WEA0	Rear Cabinet
2-1	*Not Available*	Cab B Indication Plate
CABINET PARTS (21F-PD250)		
1	CCABAB849WEA0	Front Cabinet Assembly
1-1	*Not Available*	Front Cabinet
1-2	JBTN-A571WJSC	Power Button
1-3	MSPRCA067WJFW	Spring
1-4	GCOVAB628WJSA	R/C & LED Cover
1-5	JBTN-A572WJSB	Control Button
1-6	HBDGB0001KJSC	Sharp Badge
2	CCABBB148WEA0	Rear Cabinet Assembly
2-1	*Not Available*	Rear Cabinet
2-2	LHLDWA101WJZZ	AC Cord Hook

[8] PACKING PARTS



NO.	PARTS CODE	DESCRIPTION
[8] PACKING PART		
3	SPAKCD639WJZZ	Packing Case (for 21F-PD250 only)
	SPAKCC730WJZZ	Packing Case (for 21F-PA18 / 21F-PA18(B) only)
	SPAKCD498WJZZ	Packing Case (for 21HXF250I / 21HXF1000I only)
4	SPAKXB061WJZZ	Packing Foam (Top) (for 21F-PD250 only)
	SPAKXA765WJZZ	Packing Foam (Top) (for 21F-PA18 / 21F-PA18(B) only)
	SPAKXB522WJZZ	Packing Foam (Top) (for 21HXF250I / 21HXF1000I only)
5	SPAKXB062WJZZ	Packing Foam (Bottom) (for 21F-PD250 only)
	SPAKXA766WJZZ	Packing Foam (Bottom) (for 21F-PA18 / 21F-PA18(B) only)
	SPAKXB523WJZZ	Packing Foam (Bottom) (for 21HXF250I / 21HXF1000I only)
6	SSAKAA058WJZZ	Wrapping Sack for Set
7	SSAK0230CEZZ	Poly Bag for Accessory
8	TLABZB549WJZZ	Packing Label (for 21F-PD250 only)
	TLABZB584WJZZ	Packing Label (for 21F-PA18 only)
	TLABZB585WJZZ	Packing Label (for 21F-PA18(B) only)
	TLABZB582WJZZ	Packing Label (for 21F-PT220 only)